Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matters of	)	
	)	
Access Charge Reform	)	CC Docket No. 96-262
	)	
Price Cap Performance Review for Local Exchange Carriers	)	CC Docket No. 94-1
	)	
	)	
Tariffs Implementing Access Charge Reform	)	CC Docket No. 97-250
	)	
	)	
Consumer Federation of America, Petition for Rulemaking	)	RM-9210
	)	

SUPPLEMENTAL COMMENTS AND SUBMISSIONS OF U S WEST COMMUNICATIONS, INC.

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October 26, 1998

TABLE OF CONTENTS

Page

SUMMARY

U S WEST Communications, Inc. (U S WEST) hereby submits its supplemental comments and submissions in response to the Federal Communications Commission's ("Commission") Public Notice dated Oct. 5, 1998. U S WEST generally supports the comments and exhibits submitted by the United States Telephone Association ("USTA").

Fundamentally, U S WEST's position is quite simple. Price cap regulation is resulting in dramatically lower access charges to consumers than would have been conceivable had rate of return regulation been retained. Therefore, the Commission should not concede to the demands of industry monoliths such as AT&T/TCG and MCI WorldCom that the price cap bargain be breached by forcibly reducing interstate access rates below what already has been accomplished. If anything, the Commission should take steps to provide the maximum public benefit by reducing the current incumbent local exchange carrier ("LEC") 6.5% X-factor and granting regulatory flexibility and freedom in those markets that are subject to competition.

First, the demands of industry monoliths such as AT&T and MCI WorldCom to raise the X-factor as a means of further driving down interstate access rates are fundamentally flawed. The Commission's price cap regime must provide incumbent LECs with a modicum of stability. Otherwise, regulated carriers do not have the economic incentive to make long-term incentives in technology within their networks. Further, large interexchange carriers ("IXC") are effectively asking the Commission to penalize companies for succeeding under price cap regulation by driving out the inefficiencies that were inherent under rate of return regulation.

The fact that, as demonstrated by a recent USTA study, large IXCs are not passing access charge reductions on to their customers belies their argument that further reductions would produce some kind of public benefit.

As a simple matter of common sense, the 6.5% productivity factor is an unsustainable and probably destructive number. An in-depth review and update of the productivity factor prepared by Dr. Frank Gollop demonstrates that the current X-factor is too high. It is also important to recognize that much of the current growth of incumbent LECs is based on usage sensitive pricing for growth in services which do not exhibit usage sensitive cost characteristics. It should also be self evident that incumbent LECs as a class will not be able to out-produce the entire American economy by a staggering 6.5% per year (or 26% after four years) on a sustained basis.

Second, a number of large IXCs claim that interstate access charges are too high because they exceed their own formulation of forward looking costs. However, prescribing rates based on forward looking costs in a separations driven regulatory environment would be unlawful. Moreover, as documented in the USTA study, the Commission's price cap and access charge structure are resulting in a movement of access charges towards economic costs. Relying on market forces to achieve this objective is most assuredly a better approach than a regulatory effort to pre-determine what those economic costs should be.

Third, the Commission should rapidly adopt the very modest industry deregulation/pricing flexibility schedule. The Commission has recognized that deregulation is appropriate, and indeed preferable, in competitive markets.

U S WEST's experience shows the rapid proliferation of competition in the market for access services nationwide. In fact, U S WEST recently filed a petition seeking regulatory relief from dominant carrier regulation in the Phoenix area market for high capacity access services based on substantial evidence that the market is intensely competitive.

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	)	
Consumer Federation of America, Petition for Rulemaking	)	RM-92110
	)	

SUPPLEMENTAL COMMENTS AND SUBMISSIONS OF U S WEST COMMUNICATIONS, INC.

U S WEST Communications, Inc. ("U S WEST") hereby submits its Supplemental Comments and Submissions in the above-captioned dockets. These supplemental comments are prompted by the Federal Communications Commission's ("Commission") Public Notice of Oct. 5, 1998.[1]

The Public Notice seeks further comment and information on three different matters related to access reform:

- What, if any, changes should be made to the incumbent local exchange carrier ("LEC") X-factor (the "productivity factor," pursuant to which the prices of incumbent LECs are currently driven down a minimum of 6.5% per year in real terms).

[1] Public Notice, Commission Asks Parties to Update and Refresh Record for Access Charge Reform and Seeks Comment on Proposals for Access Charge Reform Pricing Flexibility, CC Docket Nos. 96-262, 94-1, 97-250, RM-9210, FCC 98-256, rel. Oct 5, 1998.

- Whether the Commission should prescribe incumbent LEC rates, presumably based on some version of rate of return-based analysis or, perhaps, a forward-looking cost methodology such as the TELRIC method developed in CC Docket No. 96-98.

- How should the Commission proceed with granting additional pricing flexibility to incumbent LECs for their interstate access services, if at all?

U S WEST joins in the comments and exhibits submitted by the United States Telephone Association ("USTA").

Fundamentally, our position is quite simple. Price cap regulation is resulting in dramatically lower access charges to consumers than would have been conceivable had rate of return regulation been retained. Thus, taking the suggestion of industry monoliths such as AT&T and MCI WorldCom that the price cap bargain be breached by the regulator because many incumbent LECs have earned returns over the past years commensurate with their industry counterparts would not only be grossly unfair and of questionable legality, such action would, by destabilizing price cap regulation, create an environment hostile to investment and service quality which would operate contrary to the Commission's entire concept of the public interest. If anything, as is demonstrated in the USTA filing, the current 6.5% X-factor is considerably too high to permit rational long-term investment planning by incumbent LECs and cannot be justified based on updated inputs to the Commission's model which produced the 6.5% X-factor. In point of fact, the X-factor should be phased out and ultimately eliminated. The more open to competition local markets become, the less need or justification there is for any price regulation.

This same analysis leads to the conclusion that "prescription" of a new rate for interstate access by incumbent LECs would be both unlawful and

counterproductive. A prescription would, of course, need to be based on a rate of return analysis to have any possibility of surviving legal challenge, because any rate prescription would need to permit affected carriers the full opportunity to recover the costs and investment assigned to the interstate jurisdiction through the separations process. A rate of return-based prescription would, however, seem to be an express betrayal of both the price cap premise and promise. The prescription petitions of the Consumer Federation of America ("CFA") and MCI, based as they are on theoretical costs, simply cannot be sustained if the established prices were not sufficient to recover all interstate costs, plus a reasonable profit.

Finally, it is clearly time for the Commission to take some steps towards granting regulatory flexibility and freedom for at least some incumbent LEC services. There is no good reason to continue dominant carrier regulation of high capacity private line services, data (packet) services, or packaged services offered to larger customers. In fact, it is becoming obvious that in at least some areas where competition seems to be taking hold more slowly, the cause of the absence of meaningful competition can be attributed to a deliberate refusal of large interexchange carriers ("IXC") (who control practically all of the larger competitive LECs at this time) to compete in residential areas, largely as a ruse to delay Bell Operating Company ("BOC") entry into the long distance market. Be that as it may, the record is very clear that much current regulation, including price regulation, is no longer necessary or defensible.

I. THE COMMISSION SHOULD NOT BETRAY THE PRICE CAP BARGAIN BY SEEKING TO FURTHER REDUCE INCUMBENT LEC RATES

The first two issues which the Public Notice addresses both deal with the same series of arguments made by incumbent LEC opponents -- demands that the interstate access prices of incumbent LECs be driven down by regulatory fiat. Several key observations are relevant to demands that the X-factor be increased and that incumbent LEC access rates be reduced below what the X-factor already accomplishes. As these observations have already been made in earlier filings in these dockets, we restate them only briefly.

It must first be remembered that the price cap rules imposed significant new risks on incumbent LECs. The comfortable rate of return regime, whereby incumbent LECs could count on rates linked to investment and cost, was replaced with a structure whereby the incumbent LEC's prices could be driven down each year no matter what happened to investment and cost. The bargain for this greater incumbent LEC risk, which included lower prices for interstate access, was that incumbent LECs who did become more efficient also could become more profitable. Thus, the price cap "bargain" has two sides. Criticizing or penalizing incumbent LECs for becoming overly efficient under price cap regulation would undermine the integrity of the entire structure.

Any Commission action on incumbent LEC rates must recognize the fundamental right of incumbent LECs to recover, or at least to have the opportunity to recover, all of the costs assigned to the interstate jurisdiction via the separations process. Because separations is an artificial process, interstate ratemaking is

likewise to a large extent artificial. The Commission is plainly without the power to establish a regulatory structure which denies incumbent LECs the opportunity to recover their separated costs. Thus, while such concepts as forward looking costs have validity as costing models and as proper valuations of economic costs in many circumstances, so long as the separations process remains intact, incumbent LECs must have the opportunity to recover whatever costs the process sends over to the interstate jurisdiction.

Moreover, the price cap regulatory regime must provide incumbent LECs with a modicum of stability or risk undercutting the vitality of local exchange networks and depriving consumers -- particularly those consumers not served by the large competitors -- of both traditional and advanced telecommunications services. The Commission has long recognized that unstable price cap regulation -- particularly price cap regulation that does not provide carriers with the ability to make long-term investment decisions with confidence that regulators would not seek to deprive them of the economic benefits of the investment -- would tend to harm the basic telecommunications network. This is because an overly aggressive price cap regulatory structure would make it economically attractive for a price cap carrier to increase its short term profits by abandoning investment and network maintenance. The fundamental economic driver in a price cap environment must be stability; otherwise regulated carriers are deprived of the economic incentive to deploy the technology within their networks which no one denies would serve the public interest.

In the rate of return environment, inefficient as that regulatory structure was, carriers knew that they would be able to recover their investment plus a reasonable profit by virtue of the regulatory regime itself. This assurance no longer exists under price caps -- carriers now invest with the same hope of earning a profit which motivates investment in other unregulated industries. But if price cap regulation is always hindered by the threat that the regulator may determine that the profit earned by the carrier is "excessive" and warrant for negative price cap adjustments, the regulatory structure itself will harm investment and the public interest. The Commission has already adjusted the price cap formula -- to the detriment of incumbent LECs -- twice during the scant seven years during which price cap regulation has been in effect. Additional tinkering with the X-factor would completely undermine the assumptions on which investments have been made under the current price cap structure and signal to carriers that future investments would be subject to price cap shifts which could make the investments uneconomical.

Indeed, the very notion of assessing the success or failure of a price cap regulatory structure based on reported interstate earnings, as large IXCs such as AT&T and MCI WorldCom have been proposing for some time now, is an extraordinary one. Price cap regulation is intended to drive greater efficiency among regulated carriers by giving them the economic incentive to become more productive. This incentive is the standard motive which has proven to be the engine of the United States economy for well over a century and a half -- the ability to earn a higher profit based on superior performance. To penalize companies for

succeeding under price cap regulation -- when they could have avoided these penalties by maintaining the very inefficiencies which price cap regulation was meant to eliminate -- would be a truly bizarre twist of regulatory fate.

The reported rate of return on interstate services for U S WEST for the calendar year 1997 (which included six months with the current X-factor) was 15.39%, something which AT&T and MCI WorldCom have pointed to as meaningful in terms of evaluating whether price cap regulation is "working." We submit that the reported interstate rate of return of a price cap carrier is utterly irrelevant for any purpose. However, several key aspects of this reported rate of return make it clear that, even if an earned rate of return were relevant to price cap review analysis, the interstate rate of return relied on by AT&T and MCI WorldCom would still not be relevant.

The interstate reported rate of return is not directly related to actual company performance, productivity or efficiency, because it is driven to a large extent by the separations process. When U S WEST's overall rate of return (from regulated services) is analyzed, the overall rate of return on rate base (post Part 64 accounting) calculated using the ARMIS reports was 8.9% (1991-1997). This calculation excludes the 1993 curtailment loss and restructure charge. In short, U S WEST is not earning anywhere near the current showing on the FCC Form 492 for regulated interstate services.

In addition, the impact of the separations process on the reported interstate rate of return has been dramatically increased by Internet usage of public switched network. As has been pointed out previously, Internet users have much longer

holding times than other network users, and Internet usage has been exploding.[2] U S WEST's local use per line for the years 1991 through 1995 has been consistently in the range of 14,200 and 14,600 minutes of use per line per year. In 1996, this number increased to 15,166 minutes of use per year, and further increased to 16,606 per year in 1997. A very large proportion of this increase is attributed to Internet usage -- we now estimate that the average line used for local calling and Internet access generates 64 minutes of use per day, while the average non-Internet user generates 39 local minutes of use per day.[3] It should be noted that practically all of the incremental usage above 39 local minutes per day is interstate in nature, but is treated as intrastate for separations purposes, and is billed at the flat-rated charges currently available for "local" usage.

Our point here is not to argue the merits of a structure which enables this type of pricing to occur, but rather to observe the significant impact which Internet usage has on the separations process, which in turn is driving the interstate rate of return of all incumbent LECs. Simply stated, Internet usage, which is almost entirely interstate in nature, is driving costs artificially to the intrastate jurisdiction. Because Internet usage is not priced (per governmental force) in an economic manner, it is not bringing with it a commensurate amount of revenue to cover the costs. The result is a mismatch which artificially drives up the interstate reported rate of return, and drives down the intrastate rate of return.

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[2] See, e.g., Comments of U S WEST, Inc. In Response To Notice Of Inquiry Concerning Information Service Providers, CC Docket No. 96-262, et al., filed Mar. 24, 1997 at 15-22 and Exhibit A.

Moreover, the separations process driving the reported interstate rate of return is being skewed by interconnection agreements (whereby competitors purchase network elements which have no attached jurisdiction) and numerous anomalies based simply on the way the separations process works (witness the U S WEST frame relay service where the investment was being driven to the intrastate jurisdiction and the revenues were being assigned to the interstate jurisdiction).[4] Indeed, U S WEST has recommended a total restructure of the separations process to bring it into conformance with modern telecommunications reality.[5]

The reported interstate rate of return also is based on the artificial depreciation rates which have produced the current reserve deficiency. If U S WEST's depreciation rates were set at economic levels, its reported interstate rate of return would be considerably lower. U S WEST's total reserve deficiency, assuming a three-year amortization, is $587.8 million per year. U S WEST's interstate reserve deficiency is $123.1 million per year, assuming the same three-year amortization. Overlaying this reserve deficiency on the 1997 reported results yields a 13.65% interstate rate of return, significantly below the 1997 reported rate of return.

Finally, an exhibit submitted by USTA and prepared by the National Economic Research Associates entitled "AT&T, MCI and Sprint Failed to Pass

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[3] This number is based on an assumed 25% Internet penetration.

[4] Petition of U S WEST Communications, Inc. for Waiver, filed May 16, 1997.

[5] Comments of U S WEST, Inc., CC Docket No. 80-286, filed Dec. 10, 1997.

Through in 1998 Interstate Access Charge Reductions to Consumers," (Brandon and Taylor, October 16, 1998) ("NERA Study") documents what most have already either known or intuited -- that the large IXCs are not passing access charge reductions on to their customers. By itself, this phenomenon does not really prove anything -- U S WEST does not suggest that the Commission regulate IXC prices in order to effectuate such a result. However, there are several key conclusions which must be drawn from the fact that access charge reductions are not being passed on to consumers.

First, many IXCs have claimed in the past, and no doubt will continue to claim, that reduction of access prices, even below the level necessary to enable incumbent LECs to continue to invest in their own services or infrastructure, is really some kind of public benefit which should redound to the overall good of consumers. In point of fact, what the IXCs are looking for is a government-mandated hand-out which they plan to keep.

Second, the fact that cost reductions are not being passed on to IXC customers really belies to at least some extent the assumption that the IXC market is competitive, or at least as competitive as many IXCs would like us to believe. The fact that all IXCs receive an input cost reduction, and all IXCs simply pocket this cost reduction as increased profit, is not behavior which would be generally perceived in a robustly competitive market.

Thus, significant skepticism should greet expected promises by IXCs in this docket to pass additional access rate reductions on to consumers.

A. The X-factor Should Be Reduced

By all meaningful accounts, price cap regulation is working, at least in terms of providing a superior alternative to rate of return regulation. The prices of incumbent LEC interstate services are considerably lower than would have been the case had rate base regulation been retained. Yet calls persist from various quarters to the effect that the X-factor, which is an artificial device which drives incumbent LEC prices down by real terms by 6.5% per year (a stunning 26% over four years) should be increased, and that incumbent LEC prices should be further reduced. Aside from the fact that such action would be destructive and illegal, we offer the following observations.

The X-factor was developed based on incumbent LEC productivity analysis, not rate of return analysis (a determination which was, of course, proper). Adjusting the X-factor based on rate of return analysis would be logically unsustainable.

USTA commissioned Dr. Frank Gollop to review the incumbent LEC productivity analysis conducted by the Commission in establishing the current X-factor of 6.5% for the five-year average from 1993 to 1997, but utilizing more current data. Using the Commission's methodology, a proper X-factor using current data would be 4.38% for the five-year average from 1993 to 1997. This figure represents the upper limit of a lawful X-factor.

Dr. Gollop also conducted an in-depth review of the TFP model submitted by USTA in this Docket entitled "Technical Report; Replication and Update of the X-Factor Constructed Under FCC Rules," submitted by USTA in this docket on

October 22, 1998. This productivity review, which we submit is a far more accurate reflection of realistic productivity numbers of incumbent LECs during this period, would produce an X-factor of no more than 3%.

It is also necessary to recognize that the ongoing access charge restructure significantly reduces the ability of an incumbent LEC to maintain productivity gains at the level on which the current X-factor is based. Much of the current productivity growth of incumbent LECs is based on usage sensitive pricing for growth in services which do not exhibit usage sensitive cost characteristics. Access restructure is changing this model, and the Commission must not assume that productivity gains demonstrated in, and often caused by, a prior regulatory structure will continue under the new access rules.

In reviewing the productivity numbers being thrown around in these dockets, a dash of common sense might also be useful. It is self evident that incumbent LECs as a class, so often referred to by their opponents as monopolistic, inefficient dinosaurs, cannot also be able to out-produce the entire American economy by a staggering 6.5% per year -- certainly not on a sustained basis. The 6.5% X-factor must, as a matter of economic necessity, dry up incumbent LEC investment, particularly in those less profitable areas where competitors choose not to serve. As a simple matter of common sense, the 6.5% X-factor is unsustainable and probably destructive.

B. Access Rates Should Not Be Prescribed

As a companion to the assertion by various incumbent LEC opponents that the productivity factor should be increased, a variety of entities have claimed that

access rates should be prescribed, generally on some variant of forward-looking costs.[6] The predicate for these demands is pretty much the same as the one for increasing the X-factor -- these entities proclaim that access prices are too high.

However, the basis for the claim is in the realm of fantasy -- these parties claim that interstate access prices are too high because they exceed their own formulation of forward-looking costs.[7] Several brief observations are appropriate.

As noted above, prescribing rates based of forward-looking costs in a separations-driven regulatory environment would be in violation of the law. U S WEST has invested in its network, and its network exists as a physical reality -- although it is often under-depreciated because of regulatory decisions. For the Commission to make a determination that U S WEST would need to price its network based on the projected cost of constructing a future hypothetical network, ignoring what it actually invested in this construction of its current network, would most certainly run afoul of the Communications Act and the Constitution. No matter what one thinks of forward-looking cost methodology of any nature (including the Commission's own TELRIC methodology) as a method for determining economic costs, the Commission is utterly without power to use such methodology to deprive U S WEST of the ability to recover its investments and costs as assigned to the interstate jurisdiction through the separations process.

Moreover, as is documented in the USTA comments referring to the NERA

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[6] Consumer Federation of America, et al., Petition for Rulemaking, Rm-9210, filed Dec. 9, 1997.

[7] Id.

Study, the price cap and access charge structure, the anticipated universal service fund rules, and competition are resulting in a movement of access rates towards economic costs. Indeed, as USTA documents, access charges are declining dramatically, a phenomenon which is attributable both to the Commission's rules and to the necessity for incumbent LECs to prepare for market competition. While U S WEST may disagree with the Commission in details, the concept that a regulatory structure which permits access prices to move towards economic costs based on market forces is most assuredly a better approach than a regulatory effort to pre-determine what those economic costs should be.

II. THE COMMISSION SHOULD RAPIDLY ADOPT THE VERY MODEST INDUSTRY DEREGULATION/PRICING FLEXIBILITY PLAN

U S WEST supports the industry deregulation/pricing flexibility proposal submitted by USTA in its comments. Under this plan, the first phase of deregulation would be triggered by a state-approved interconnection agreement and evidence that customers are utilizing alternative providers. Once these criteria area satisfied, no public interest or cost showing would be required for new services, Part 69 codification would be eliminated, and price deaveraging, volume and term pricing, contract tariffs and promotional pricing would be allowed. This relief appropriately moves toward elimination of asymmetrical regulation, which is extremely harmful in a competitive environment. The second phase of deregulation would be triggered by a showing that 25 percent of an incumbent LEC's demand (by wire center) is addressable by competitors and customers are utilizing alternative providers. Upon such showings, incumbent LECs would be permitted to simplify

the price cap basket structure and the services which meet the trigger would be subject to a reduced productivity factor. In the final phase of deregulation, where at least 75 percent of an incumbent LEC's demand (by wire center) is addressable and customers are utilizing alternative providers, the services would be removed from price cap regulation.

This industry proposal is consistent with the Commission's "market-based approach" to reforming access charges. As the Commission recognized,

> Competitive markets are superior mechanisms for protecting consumers by ensuring that goods and services are provided to consumers in the most efficient manner possible and at prices that reflect the cost of production. Accordingly, where competition develops it should be relied upon as much as possible to protect consumers and the public interest. In addition, using a market-based approach should minimize the potential that regulation will create and maintain distortions in the investment decisions of competitors as they enter local telecommunications markets.[8]

Fundamentally, the Commission's approach necessitates that, where competition exists, government regulation should be removed.

U S WEST's own experience proves that there is intense competition in the market for access services. Indeed, U S WEST recently filed a petition asking the Commission to forbear from dominant carrier regulation of its high capacity access services in the Phoenix area. The petition is supported by compelling evidence from resellers and five established facilities based competitors, including the combined AT&T/TCG and MCI WorldCom companies. A copy of U S WEST's petition,

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[8] In the Matter of Access Charge Reform, First Report and Order, 12 FCC Rcd. 15982, 16094 ¶ 263 (1997) (emphasis added), aff'd sub nom. Southwestern Bell Tel. Co. v. FCC, (8th Cir., Aug. 19, 1998).

including the attached market study, engineering report and economic analysis, is attached for inclusion in this proceeding.[9]

Following the approach that the Commission used to assess market power in the AT&T non-dominant proceeding and other proceedings, the noted economists Alfred E. Kahn and Timothy J. Tardiff conclude that U S WEST lacks market power in the Phoenix area market for high capacity access services. First, U S WEST has a steadily declining market share. The market analysis conducted by Quality Strategies demonstrates that competitive providers currently have more than 70 percent of the retail market for high capacity services. Moreover, it is important to note that competitive providers' market share has been growing even more rapidly than the rapid growth in the demand for high capacity access services in the Phoenix area. Perhaps the most important trend statistic is the fact that, between the second and fourth quarter of 1997, competitive providers captured about half of the growth in the demand for these services.

Second, there is high demand and supply elasticity. The customers that tend to purchase access facilities, including business governmental entities and other carriers, are highly sensitive to price and other service characteristics. In addition, competitive providers have deployed more than 800 miles of optical fiber in the Phoenix MSA. These extensive fiber backbone networks could handle all of U S WEST's end user and transport traffic at less than eight percent capacity. As the report prepared by POWER Engineers, Inc. shows, competitive providers would

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[9] See Exhibit A.

not incur significant costs to extend their fiber networks to absorb the vast majority of U S WEST's current demand for high capacity access services.[10]

Third, U S WEST does not enjoy an advantage in terms of its costs, structures, size and resource. To the contrary, the combined AT&T/TCG and MCI WorldCom companies have a significant advantage in terms of scale economies and access to capital, not to mention the advantage of being able to provide interLATA services.

In light of U S WEST's lack of market power, Kahn and Tardiff conclude that competition, without dominant carrier regulation, is sufficient to constrain U S WEST's ability to impose anti-competitive prices and other terms and conditions of service. Not only is such regulation unnecessary, but it harms the public interest by dampening the incentive of all competitors to innovate and reduce prices.

The competitive environment in the State of Nebraska, as outlined in the attached testimony of Professor Robert G. Harris, provides further support for the conclusion that competition in the market for access services also exists outside of the largest metropolitan areas.[11] Professor Harris notes that three competitive LECs have entered the local exchange market in the Omaha metropolitan area, and two companies are serving or have announced plans to serve businesses in smaller communities. These include the following:

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[10] Exhibit A at Attachment B.

[11] See Exhibit B.

- Cox Communications, the cable provider in the Omaha metropolitan area, began offering local telephone service to residential customers in parts of Omaha in December 1997 and plans to roll out telephony offerings to its entire cable service area in Omaha by the end of 1998.

- TCG, the large competitive LEC recently purchased by AT&T, constructed a 200-mile network in Omaha in 1993 to provide dedicated access and private line services to large business customers.

- Aliant, an independent incumbent LEC, began offering competitive local telephone service in June 1997. The company has been targeting its existing cellular subscribers, as well as PBX users in businesses and apartment buildings.

- FirstTel, a subsidiary of Advanced Communications Group, is currently reselling local exchange service in the more rural communities of Nebraska.

- Nebraska Technology and Telecommunications is a new entrant formed by eight small existing independent local telephone companies in Nebraska. The company is targeting business customers in small communities with populations greater than 1,000 and plans to combine local telephony (via resale initially) with telecommunications management and consulting services.

While competitive entry in Nebraska is focused on Omaha (where the majority of U S WEST's customers are located), limited entry in the rural communities of Nebraska also is occurring.

As U S WEST's experience demonstrates, competition in the market for access services is developing rapidly, and is already full-blown in many markets. Continuing to maintain asymmetrical regulation of incumbent LECs in the face of this competitive environment imposes significant social costs deprives consumers of

the benefits of competition. Thus, it makes good sense for the Commission to deregulate upon a showing that objective competitive measures are satisfied.

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October 26, 1998

EXHIBIT A

Stamp + Return

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)
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Petition of U S WEST Communications, Inc.	)
for Forbearance from Regulation as a	)
Dominant Carrier in the Phoenix, Arizona	)
MSA	)

PETITION OF U S WEST COMMUNICATIONS, INC. FOR FORBEARANCE

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TABLE OF CONTENTS

Page

SUMMARY

U S WEST Communications, Inc. ("U S WEST"), pursuant to Section 10 of the Telecommunications Act of 1996 ("1996 Act"), hereby submits this Petition requesting that the Federal Communications Commission ("Commission") exercise its authority to forbear from regulating U S WEST as a dominant carrier in the provision of high capacity services in the Phoenix, Arizona Metropolitan Statistical Area ("MSA").

In its Petition, U S WEST demonstrates that the Phoenix area market for high capacity services is robustly competitive. U S WEST faces intense competition from both resellers and five established facilities-based competitors with substantial resources and extensive fiber networks. These established companies, which include the combined AT&T/TCG and MCI/MFS WorldCom companies, have access to financial resources equal to or greater than U S WEST's with which to fund expansion of their networks.

Following the approach that the Commission used to assess market power in the AT&T non-dominant proceeding and other proceedings, Professors Alfred E. Kahn and Timothy J. Tardiff conclude that U S WEST lacks market power in the Phoenix area market for high capacity services. First, U S WEST has a steadily declining market share. The attached market analysis conducted by Quality Strategies demonstrates that competitive providers have captured more than 70 percent of the retail market for high capacity services. Moreover, it is important to note that competitive providers' market share has been growing even more rapidly

than the rapid growth in the demand for high capacity services in the Phoenix area. Perhaps the most important trend statistic is the fact that, between the second and fourth quarter of 1997, competitive providers captured about half of the growth in demand for high capacity services.

Second, there is high demand elasticity. The customers that tend to purchase high capacity facilities – medium to large businesses, governmental entities and other carriers – are highly sensitive to price and other service characteristics. The ability of U S WEST's largest carrier customers to migrate high capacity traffic to their own affiliated fiber networks further increases their bargaining ability.

Third, there is high supply elasticity. Competitive providers have deployed more than 800 route miles of optical fiber in the Phoenix MSA. These extensive fiber backbone networks could handle all of U S WEST's end user and transport traffic at less than eight percent capacity. A majority of U S WEST's current high capacity demand is located within 100 feet of the competitive providers' networks, which means that it could be absorbed almost immediately at minimal cost. Moreover, as the attached report prepared by POWER Engineers, Inc. demonstrates, competitive providers would not incur significant costs to extend their fiber networks to absorb the vast majority of U S WEST's current high capacity demand. In addition, the impressive growth of competitive providers' market share demonstrates that the cost of entry is not prohibitive.

Fourth, U S WEST does not enjoy an advantage in terms of its costs, structure, size and resources. Indeed, the combined A&T/TCG and MCI/MFS WorldCom companies have a significant advantage in terms of scale economies and

access to capital, not to mention the advantage of being able to provide interLATA services. The presence of competitive activity in the market while prices are dropping steadily is a strong indication that U S WEST does not have an insurmountable cost advantage in the market.

In light of U S WEST's lack of market power, Kahn and Tardiff conclude that competition, without dominant carrier regulation, is sufficient to constrain U S WEST's ability to impose anti-competitive prices and other terms and conditions of service. Therefore, U S WEST seeks forbearance from various dominant carrier regulations, including the requirement that U S WEST file tariffs on up to 15-days notice with cost support, price cap and rate of return regulation, and the requirement that U S WEST charge averaged rates throughout the State of Arizona (i.e., the Arizona study area).

U S WEST's Petition satisfies the three criteria of Section 10. First, because U S WEST lacks market power, dominant carrier regulation is not necessary to ensure that its rates and practices are just, reasonable and not unreasonably discriminatory. Moreover, other regulations (such as Sections 201 and 202 of the Communications Act of 1934, as amended) are sufficient to ensure that U S WEST does not attempt to charge unreasonable rates. Second, for these same reasons, dominant carrier regulation is not necessary to protect consumers. Third, forbearance from applying dominant carrier regulation to U S WEST's high capacity services is consistent with the public interest.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)
	)
Petition of U S WEST Communications, Inc.	)
for Forbearance from Regulation as a	)
Dominant Carrier in the Phoenix, Arizona	)
MSA	)

PETITION OF U S WEST COMMUNICATIONS, INC. FOR FORBEARANCE

U S WEST Communications, Inc. ("U S WEST"), through counsel and pursuant to Section 10 of the Telecommunications Act of 1996 ("1996 Act"),[1] hereby submits this Petition requesting that the Federal Communications Commission ("Commission") exercise its authority to forbear from regulating U S WEST as a dominant carrier in the provision of high capacity services[2] in the Phoenix, Arizona Metropolitan Statistical Area ("MSA"). This includes forbearance from enforcing the Commission's Part 61 tariff rules as they apply to dominant carriers and any other rules affecting high capacity services which result in different regulatory treatment for dominant and non-dominant carriers.

U S WEST's Petition is limited in scope both geographically and the services covered by it. Furthermore, it does not present any novel questions of law or fact which might prolong the

[1] 47 U.S.C. § 160.

[2] Specifically, U S WEST seeks regulatory relief for special access and dedicated transport for switched access at DS1 and higher transmission levels (e.g., DS1, DS3 and OCn). No relief is sought for other interstate services, such as switched access and special access and dedicated transport at DS0 and voice grade transmission levels.

Commission's analysis. Therefore, U S WEST requests that the Commission treat this Petition in an expedited manner in order to bring the full benefits of competition to the Phoenix area market at the earliest possible date.[3]

I. INTRODUCTION

One of the key pro-competitive provisions Congress included in the 1996 Act is Section 10, which requires the Commission to forbear from applying any regulation or provision of the Act if the Commission determines that: (1) enforcement is not necessary to ensure that rates and practices are just, reasonable, and not unreasonably discriminatory; (2) enforcement is not necessary to protect consumers; and (3) forbearance is consistent with the public interest.[4] In making the public interest determination, Section 10 requires that the Commission consider whether forbearance will promote competitive market conditions, including the extent to which forbearance will enhance competition.[5] The statutory imperative created by Section 10 reflects Congress's reasoned judgment that competition, not government regulation, should guide companies' behavior in competitive telecommunications markets.

In the sections which follow, U S WEST demonstrates that the market for high capacity services in the Phoenix MSA is robustly competitive. U S WEST faces intense competition from both resellers and five established facilities-based

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[3] Under Section 10, in the absence of an extension, the Commission has one year to act on a forbearance petition before it is deemed to be granted. 47 U.S.C. § 160(c).

[4] 47 U.S.C. § 160(a)(1)-(3).

[5] 47 U.S.C. § 160(b).

competitors with substantial resources and extensive fiber networks. These established companies – Electric Lightwave, Inc. ("ELI"), GST Telecommunications, Inc. ("GST"), MCI Telecommunications Corporation ("MCI"), MFS WorldCom and Teleport Communications Group ("TCG") – have access to financial resources equal to or greater than U S WEST's with which to fund expansion of their networks. Equally as important, the recently completed merger of TCG with AT&T Corp. ("AT&T"), and the pending merger of MCI with MFS WorldCom, will result in the two largest purchasers of high capacity services in Phoenix (AT&T and MCI) having their own competitive fiber networks. U S WEST already is experiencing the effects of these mergers, as significant portions of these customers' high capacity services have been migrated to the affiliated fiber networks.[6]

U S WEST's steadily declining market share for high capacity services in the Phoenix market supports the finding that U S WEST lacks market power. The attached market analysis conducted by Quality Strategies shows that competitive providers have captured more than 70 percent of the retail market for high capacity services.[7] This is the most important market share statistic because the retail provider of high capacity services is the party that has the direct relationship with the customer. In fact, the customer may not even be aware of the identity of the

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[6] Upon completion of the AT&T/TCG merger, AT&T Chairman Michael Armstrong said "We're reducing our dependence on Bell companies for direct connections to businesses." Armstrong also pledged "substantial resources" to continue building facilities in key markets, and has mentioned $1 billion for TCG's share of continuing AT&T capital expenses. Communications Daily, July 27, 1998.

carrier actually provisioning the underlying high capacity facilities. Therefore, the retail provider has a significant marketing advantage over the facilities provider and, in the case of U S WEST's competitors, the ability to offer a full service package to the customer that includes interLATA voice and data services.

In addition, expansion of competitive providers' business has been even more rapid than the impressive 13 percent growth in the demand for high capacity services in the Phoenix market. During the period from the fourth quarter of 1994 to the fourth quarter of 1997, the competitive providers' market share of the "provider" segment (i.e., high capacity services ultimately purchased by end users) increased from less than six percent to 28 percent.[8] The competitive providers' market share of the "transport" segment (i.e., high capacity services purchased by carriers for transport) also is growing rapidly, increasing from five percent to 16 percent between the second quarter and the fourth quarter of 1997 alone.[9] Perhaps the most significant trend statistic is the fact that, between the second and fourth quarter of 1997, competitive providers captured 54 percent of the growth in demand of the provider segment and 42 percent of the growth in demand of the transport segment.[10] Share of growth is the primary indicator of what a competitor's installed-base market share will look like in the future – and competitive providers

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[7] See Attachment A (Quality Strategies, U S WEST High Capacity Market Study, Phoenix Metropolitan Statistical Area, dated Aug. 7, 1998, at 17 ("Quality Strategies Report")).

[8] Id. at 16.

[9] Id. at 14.

[10] Id. at 15.

in the Phoenix area have captured a majority share of market growth over the past several years.

It also is important to consider the fact that existing competitive fiber networks could absorb all of U S WEST's high capacity traffic at less than eight percent capacity.[11] The only real constraint on competitive providers expanding service to U S WEST's customers is the need to build facilities to connect these sites to their existing fiber backbone networks. In most cases, this is not an issue at all. Approximately 65 percent of U S WEST's current high capacity demand (DS1 equivalents) in the Phoenix area is located within 100 feet of existing competitive provider fiber networks, which means that it is essentially located "on-network." Thus, competitive providers could absorb a majority of U S WEST's high capacity demand almost immediately, incurring only minimal costs.

Moreover, as the attached report prepared by POWER Engineers, Inc. ("PEI") demonstrates, competitive providers would not incur significant costs to extend their fiber networks to absorb the vast majority of U S WEST's current high capacity demand.[12] Specifically, competitive providers in Phoenix can serve the almost 50 percent of U S WEST's high capacity customer locations within 1,000 feet of their existing fiber networks if they invest $45 million,[13] and all of U S WEST's high capacity customer locations within 9,000 feet of their existing fiber networks if

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[11] Id. at 29.

[12] See Attachment B (POWER Engineers, Inc., Phoenix Cost Study & Model, Aug. 13, 1998 ("PEI Study")).

[13] Id. at 3. These locations account for approximately 86% of all U S WEST's current high capacity demand in the Phoenix area.

they invest approximately $127 million.[14] Given that U S WEST's share of the Phoenix area market for high capacity services is worth approximately $50 million on an annual basis and the fact that the market has been growing steadily at about 13 percent annually, it is economically rational to assume that competitive fiber networks would be able to absorb most, if not all, of U S WEST's existing customers within a relatively short period of time.

The noted economists Alfred E. Kahn and Timothy J. Tardiff have analyzed the market share and competitive fiber network data for the Phoenix area high capacity services market following the approach the Commission previously has used to assess market power for other services.[15] They conclude that "the market for high capacity services in the Phoenix area fully exhibits the indicia of competition that the Commission has prescribed."[16] In light of U S WEST's lack of market power, Kahn and Tardiff affirm that competition itself, without dominant carrier regulation, is sufficient to constrain U S WEST's ability to impose anti-competitive prices and other terms and conditions of services.

Indeed, Kahn and Tardiff conclude that continuing dominant carrier regulation of U S WEST's high capacity services in this highly competitive

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[14] Id. These locations account for approximately 95% of U S WEST's current high capacity demand in the Phoenix area.

[15] See Attachment C (Alfred E. Kahn and Timothy J. Tardiff, Economic Evaluation of High Capacity Competition in Phoenix, Aug. 18, 1998, at 1 ("Kahn and Tardiff Paper")).

[16] Id.

environment would be "anti-competitive and injurious to consumers."[17] U S WEST is the only carrier in the market that is required to file tariffs on up to 15-days notice and provide cost support.[18] Not only does this impose an unnecessary regulatory burden on U S WEST, but it gives competitive providers advance knowledge of U S WEST's rates, thereby providing these competitors with an unfair opportunity to quickly implement a market response before the filed rates can even take effect. U S WEST also is the only carrier that is required to charge uniform rates throughout the entire State of Arizona (i.e., the Arizona study area), which means that U S WEST is prohibited from responding to competitive initiatives of other carriers.[19] The end result is that competitive providers can undercut U S WEST's prices and cherry-pick the most desirable customers. The disparate regulation of U S WEST as compared to every one of its competitors places U S WEST at a severe competitive disadvantage in the high capacity services market in the Phoenix MSA.

U S WEST's Petition seeking relief from dominant carrier regulation in the Phoenix area market for high capacity services satisfies the statutory criteria for forbearance. First, dominant carrier regulation of U S WEST's high capacity

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[17] Id. at 3.

[18] See, generally, 47 C.F.R. §§ 61.38, 61.41-61.49.

[19] 47 C.F.R. § 69.3(e)(7) (access tariffs filed by price cap LECs "shall not contain charges for any access elements that are disaggregated or deaveraged within a study area that is used for purposes of jurisdictional separation"). Although U S WEST is permitted to establish density pricing zones for access elements, pricing for each density pricing zone must be uniform within a study area. 47 C.F.R. § 69.123.

services is not necessary to ensure that rates and practices are just, reasonable, and not unreasonably discriminatory. U S WEST does not have the power to control price in this market nor the ability to act in a discriminatory manner. Second, because U S WEST cannot control prices or act in a discriminatory manner, the imposition of dominant carrier regulation on U S WEST's high capacity services simply is not needed to protect consumers in the Phoenix MSA. Third, continuing to subject U S WEST's high capacity services in the Phoenix area to dominant carrier regulation deprives customers of the benefits of true competition by imposing unnecessary regulatory costs on U S WEST and hampering its ability to quickly and effectively respond to competitive initiatives. In sum, continued dominant carrier regulation of U S WEST's high capacity services in the Phoenix MSA harms the public interest and contravenes the pro-competitive goals underlying the 1996 Act.[20]

Finally, U S WEST emphasizes that it is not requesting that its high capacity services be deregulated – it is requesting only that the Commission exercise its Section 10 forbearance authority and regulate U S WEST as a non-dominant carrier in the high capacity services market in the Phoenix MSA. As a non-dominant provider, U S WEST should be subject to permissive detariffing, which would allow, but not require, the filing of tariffs on one-day's notice with a presumption of

[20] Joint Explanatory Statement of the Committee of Conference, S. Conf. Rep. No. 230, 104 Congress, 2d Session 113 (1996).

lawfulness and without any cost support.[21] The Commission also should free U S WEST's high capacity services from price cap and rate of return regulation, which are appropriate only for dominant carrier services.[22] Moreover, the Commission should forbear from applying Section 69.3(e)(7) of its rules so that U S WEST can charge deaveraged rates within the Phoenix MSA. The effect of granting U S WEST's Petition would be to place U S WEST on equal footing with all other competitors in the Phoenix area market for high capacity services.

II. U S WEST SHOULD BE DECLARED NON-DOMINANT IN THE PHOENIX MARKET FOR HIGH CAPACITY SERVICES

U S WEST's classification as a dominant carrier in the high capacity services market dates back to 1980, when the Commission found that AT&T, including its 23 associated telephone companies, dominated the telephone market.[23] Since that time, the high capacity services market has evolved from a market containing only a few competitors into a highly competitive market containing many competitors. Further, Congress adopted a number of market-opening requirements as part of the 1996 Act. These statutory requirements have had the effect of accelerating the competition that was already occurring in the high capacity services market and

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[21] In the Matter of Hyperion Telecommunications, Inc. Petition Requesting Forbearance, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 12 FCC Rcd. 8596 (1997) (forbearing from requiring non-incumbent local exchange carrier ("LEC") providers of exchange access services to file tariffs) ("CAP Forbearance Order").

[22] 47 C.F.R. §§ 61.41-61.49; 47 C.F.R. § 65.

[23] In the Matter of Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor, First Report and Order, 85 F.C.C.2d 1, 22-23 ¶¶ 60-63 (1980).

ensuring that the market remains competitive. By any measure, competitive telecommunications carriers are experiencing phenomenal growth and success in the Phoenix MSA and have evolved into a mature industry.

As demonstrated below, U S WEST cannot exercise market power in the Phoenix area market for high capacity services. If U S WEST were to attempt to raise prices, either directly or through restricting output, its customers would quickly abandon U S WEST for one of the various competitive providers in the market. Yet U S WEST remains subject to the full panoply of dominant carrier regulations while all of its competitors enjoy the benefits of streamlined regulation. The Commission should exercise its Section 10 forbearance authority and regulate U S WEST in a manner commensurate with its non-dominant position in the high capacity services market.

A. Defining The Relevant Product And Geographic Market

The first step in analyzing market power is to determine the relevant product and geographic markets.[24] This approach allows for assessment of the market power of a particular carrier based on unique market situations by recognizing, for example, that "carriers may target particular types of customers, provide specialized services, or control independent facilities in specific geographic areas."[25] In its Petition, U S WEST has carefully limited the scope of relief to the products

[24] In the Matter of Motion of AT&T Corp. to be Reclassified as a Non-Dominant Carrier, Order, 11 FCC Rcd. 3271, 3285 ¶ 19 (1995) ("AT&T Reclassification Order").

and geographic area which are shown to be competitive in the attached market analysis and engineering report.

1. High Capacity Services

The Commission has defined a relevant product market as a service or group of services for which there are no close demand substitutes.[26] In accordance with the Commission's analytical framework, U S WEST has defined the relevant product market as dedicated high capacity circuits provisioned at capacities of DS1 and above for purposes of the instant Petition. These high capacity circuits may be used to transmit voice, data, or both, and may utilize either wireline or wireless technology. While high capacity circuits may be provisioned at varying bandwidths using different technologies, they share the characteristic of offering business, government and carrier customers substantial bandwidth on a dedicated basis.

The Kahn and Tardiff Paper confirms that services provided to customers with usage sufficiently great to be economically served with high capacity facilities define the relevant product market.[27] In terms of the standard established by the Merger Guidelines, customers for lower capacity facilities would not shift their

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[25] In the Matter of COMSAT Corporation, File No. 60-SAT-ISP-97; IB Docket No. 98-60; File No. 14-SAT-ISP-97; RM-7913; CC Docket No. 80-634, Order and Notice of Proposed Rulemaking ¶ 27 (1998) ("Comsat Reclassification Order").

[26] Id. ¶ 25 (citing LEC Classification Order ¶¶ 41, 54 (In the Matter of Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area and Policy and Rules Concerning the Interstate, Interexchange Marketplace, Second Report and Order in CC Docket No. 96-149 and Third Report and Order in CC Docket No. 96-61, 12 FCC Rcd. 15756 (1997) ("LEC Classification Order"))).

[27] Attachment C, Kahn and Tardiff Paper at 3.

demands to high capacity facilities in response to a "small but significant" price increase in their current services, because the monthly cost of hooking them up for high capacity access is as much as six to seven times their current basic monthly charges.[28] Because high capacity access and low capacity access are not substitutable on the demand side, low capacity services are in a separate product market.[29]

2. Geographic Scope of the Market for Dedicated High Capacity Services

As the Commission recently explained, a "relevant geographic market aggregates into one market those consumers with similar choices regarding a particular good or service in the same geographical area."[30] U S WEST's Section 10 Petition seeks regulatory relief only for the Phoenix MSA because within this market there is an identifiable class of competitors providing high capacity services. Kahn and Tardiff note that the geographic scope for high capacity facilities from the supply side is the metropolitan area.[31] A metropolitan area tends to be the area

[28] Id. at 4 (citing Merger Guidelines).

[29] Id.

[30] Comsat Reclassification Order ¶ 27; see also In the Applications of NYNEX Corporation and Bell Atlantic Corporation For Consent to Transfer Control of NYNEX Corporation and Its Subsidiaries, Memorandum Opinion and Order, 12 FCC Rcd. 19985, 20016-17 ¶ 54 (defining relevant geographic area as "an area in which all customers in that area will likely face the same competitive alternatives" for a relevant service) ("Bell Atlantic/NYNEX Order").

[31] Attachment C, Kahn and Tardiff Paper at 5. This definition is consistent with the use of the MSA as the relevant geographic market. The U.S. Census Bureau describes the general concept of an MSA as "that of a core area containing a large population nucleus, together with adjacent communities having a high degree of

within which a provider announces the availability of its service and the area within which a provider can expand in a timely fashion to offer services to a growing number of locations.[32] In this case, the PEI Study demonstrates that competitors can economically expand to serve almost half of U S WEST's existing high capacity customer locations in the Phoenix area (representing 86 percent of its existing high capacity demand) within 18 to 24 months.[33]

U S WEST also limits the geographic scope of its Petition so that it covers only that area for which U S WEST has irrefutable evidence of competition. The attached Quality Strategies Report (Attachment A) shows that U S WEST faces intense competition from established facilities-based providers in the provisioning of high capacity services in the Phoenix MSA. In fact, competitive providers have substantial market share and more than sufficient network capacity to absorb U S WEST's existing business should U S WEST attempt to exercise market power. In addition, the PEI Study demonstrates that competitive providers could expand their existing networks at relatively little cost to serve U S WEST's existing high capacity customers in the Phoenix area. Based on this evidence, Kahn and Tardiff conclude that the Phoenix area market for high capacity services is highly

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economic and social integration with that core."
http://www.census.gov//population/www/estimates/aboutmetro.htm.

[32] Attachment C, Kahn and Tardiff Paper at 5. That is not to say that competitive providers are limiting their competitive entry to the Phoenix MSA. GST, for example, describes itself as a "super-regional" competitive LEC and is clearly focused on increasing its statewide presence in Arizona.
http://www.gstcorp.com/annual97.

[33] Attachment B, PEI Study at 3.

competitive and that U S WEST does not have the ability to exercise market power.[34]

B. The Phoenix Market For High Capacity Services Is Robustly Competitive

In assessing market power, the Commission is guided by well-accepted principles of antitrust analysis to determine whether a carrier is dominant in the relevant product and geographic market.[35] The Commission has relied on several factors as part of this analysis, including: (i) market participants; (ii) market share; (iii) the demand elasticity of customers; (iv) the supply elasticity of the market; and (v) the carrier's cost, structure, size and resources. Assessment of these general characteristics of the Phoenix area market for high capacity services demonstrates that U S WEST cannot exercise market power.

1. Market Participants

The Phoenix market for high capacity services is characterized by a number of established competitors with substantial resources. The following is a brief description of the five facilities-based market participants discussed in the Quality Strategies market analysis:

ELI has over 400 route miles of fiber in the Phoenix area and 30 to 45 buildings on its network.[36] ELI also claims to have invested $37 million in new

[34] Attachment C, Kahn and Tardiff Paper at 20-21.

[35] Comsat Reclassification Order ¶ 67.

[36] Attachment A, Quality Strategies Report at 26.

facilities in Phoenix.[37] Far from being a start-up, ELI is a subsidiary of Citizens Utilities Company, a large utility company and full-service telecommunications services provider.[38]

Moreover, ELI is a rapidly growing company. In 1997 alone, ELI's revenues increased 95 percent, from $31.3 million to $61.1 million. ELI's network services revenue (which includes private line services) increased from $18.7 million in 1996 to $33.5 million in 1997, an increase of 78.9 percent.[39] In addition, ELI's route miles increased from 1,428 to 2,494, an increase of 74.6 percent, and its fiber miles increased from 97,665 miles to 140,812 miles, an increase of 44.2 percent.[40]

GST has approximately 300 route miles of fiber in Arizona, including more than 11 miles of fiber in downtown Phoenix and a long haul fiber link between Phoenix and Tucson.[41] GST has wired 15 to 25 buildings on its network. GST also installed more than 50,000 access lines in 1997 and 16,000 additional access lines in the first quarter of 1998.[42] In the first quarter of 1998, GST acquired a long distance company, Call America Phoenix.[43]

MCI has 20 to 40 route miles of fiber in the Phoenix area and 25 to 35

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[37] http://www.eli.net/phxswitch.html.

[38] http://www.eli.net/history.html. Citizens Utilities had revenues of $1.4 billion in 1997, an increase of 8% over 1996.
http://www.czn.net/PressReleases/pr031298.html.

[39] http://www.eli.net/annual.pdf.

[40] Id.

[41] Attachment A, Quality Strategies Report at 26.

[42] http://www.gstcorp.com/investors/March10k.html.

[43] http.//www.gstcorp.com/press/gen86.html.

buildings on its network.[44] The merger of MCI and MFS WorldCom (see below) is currently pending.

MFS WorldCom has 75 route miles of fiber in the Phoenix area and more than 50 buildings on its network.[45] The merger of MFS WorldCom and MCI (see above) is currently pending.

TCG has over 300 route miles in the Phoenix area and more than 150 buildings on its network.[46] The merger of TCG and AT&T was recently completed. AT&T already has begun the process of migrating all of its dedicated high capacity traffic from U S WEST to TCG.

Clearly, none of these providers of high capacity services can be classified as "start-up" companies. According to Quality Strategies, ELI and TCG entered the market in 1994, MFS WorldCom entered the market in 1995, MCI entered the market in 1996 and GST entered the market in 1997. Further, these companies have access to financial resources equal to or greater than U S WEST's that can be used to fund expansion of their networks serving Phoenix customers of high capacity services. For example, in the past two years, WorldCom acquired two competitive providers, MFS and Brooks Fiber, for a combined price of $16.4 billion – an amount almost identical to what SBC paid to acquire Pacific Telesis. The combined MCI and MFS WorldCom company will have 22 million customers and

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[44] Attachment A, Quality Strategies Report at 25.

[45] Id.

[46] Id.

annual revenues of $32 million in 1998.[47] Similarly, AT&T recently acquired TCG at a cost of $11.3 billion and announced its intention to acquire TCI at a cost of $48 billion. The sheer size of the combined AT&T/TCG and MCI/MFS WorldCom companies dwarfs U S WEST.

Equally as important, the recently completed merger of TCG with AT&T, and the pending merger of MCI with MFS WorldCom, will result in the largest purchasers of high capacity services in Phoenix having their own competitive fiber networks. This is a significant development, given that AT&T/TCG and MCI/MFS WorldCom account for approximately half of U S WEST's high capacity businesses in the Phoenix MSA. In fact, U S WEST already is experiencing the effects of these mergers, as significant portions of these customers' high capacity services have been migrated to the affiliated competitive fiber networks. Kahn and Tardiff observe that "[i]t would be difficult to conceive of a more substantial consequent diminution of whatever market power [U S WEST] might previously have enjoyed."[48]

U S WEST's experience with AT&T is illustrative. AT&T began migrating circuits from U S WEST to competitive provider facilities during the third quarter of 1997 and since then has disconnected a majority of its U S WEST-provided circuits and migrated them to alternative providers. Now that AT&T has completed its merger with TCG, AT&T has pledged to further reduce its dependence on

[47] http://investor.mci.com/merger_overview/merger2.htm.

[48] Attachment C, Kahn and Tardiff Paper at 6.

U S WEST and other Bell companies and to commit "substantial resources" to continue building TCG facilities.[49]

In addition to giving AT&T and MCI access to their own high capacity facilities, the consolidations of AT&T and MCI with facilities-based access providers will result in the merged companies now competing head-to-head with U S WEST in the Phoenix area market for high capacity services. Therefore, AT&T and MCI have an incentive to oppose U S WEST's Petition purely for their own business purposes.

2. Market Share

U S WEST's steadily declining market share for high capacity services in the Phoenix MSA supports the conclusion that U S WEST lacks market power.[50] Quality Strategies uses DS1 equivalents as the basis for its market share calculations because DS1 bandwidth is deemed the baseline for the high capacity services market.[51] As discussed above, the high capacity services market encompasses both voice and data traffic, and wireline and wireless technologies. For analytical purposes, Quality Strategies describes the Phoenix area market for high capacity services as a three-tier market, with U S WEST and other providers selling services to end users, resellers and other carriers for transport purposes.[52] As depicted below, this market can be sub-divided based on who high capacity

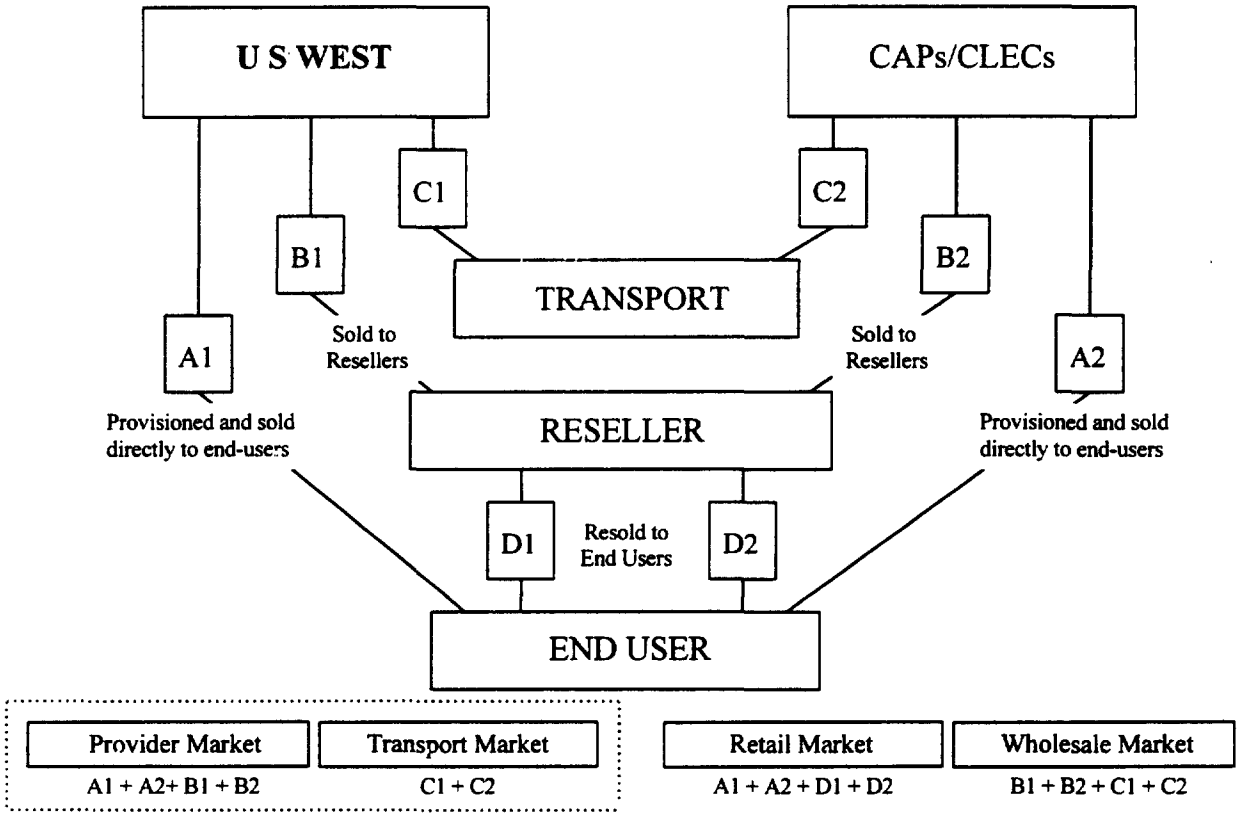
[49] Communications Daily, July 27, 1998.

[50] See AT&T Reclassification Order, 11 FCC Rcd. at 3307 ¶ 67.

[51] Attachment A, Qualities Strategies Report at 35.

[52] Id. at 9-10.

services are sold to – retail and wholesale segments – versus who is ultimately using the underlying facilities – the "provider" and "transport" segments.[53]



The attached market analysis conducted by Quality Strategies shows that competitive providers have captured more than 70 percent of the retail market for high capacity services.[54] This is the most important market share statistic because it identifies the carrier that has the direct account relationship with the customer. In fact, the customer may not even be aware of the identity of the carrier actually provisioning the underlying high capacity facilities. Therefore, the retail services provider has a significant marketing advantage over U S WEST when it is only the

[53] Id.

[54] Id. at 17. The combined AT&T/TCG and MCI/MFS WorldCom companies comprise over 50% of the retail market. Id.

facilities provider. For all competitors in the Phoenix MSA other than U S WEST, the retail service provider can take advantage of its relationship with the customer to offer a full service package which includes interLATA voice and data services.

The Commission has acknowledged the fact that competitive entry of resellers, some of which may grow to become regional or even national facilities-based competitors, puts downward pressure on prices.[55] In its recent decision denying Personal Communications Industry Association's petition for forbearance from enforcing the resale rule as applied to PCS providers, the Commission stated that resellers exert downward pressure on rates through their ability to purchase services at high volume rates and pass through those savings to their customers.[56] The Commission also noted that resellers are able to offer their customers packages of services, some or all of which may be obtained from other providers, thereby enabling resellers to tailor service packages to meet each customer's particular mix of needs.[57] As discussed above, resellers of high capacity services enjoy a significant competitive advantage over U S WEST because of their ability to offer a full service package that includes interLATA services.

Moreover, expansion of competitive providers' business has been even more rapid than the impressive 13 percent growth in the demand for high capacity

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[55] AT&T Reclassification Order at 3304 ¶ 61; In the Matter of Personal Communications Industry Association's Broadband Personal Communications Services Alliance's Petition for Forbearance for Broadband Personal Communications Services, Memorandum Opinion and Order and Notice of Proposed Rulemaking, FCC 98-134, ¶ 35, rel. July 2, 1998 ("PCIA Forbearance Order").

[56] Id.

[57] Id.

services in the Phoenix market.[58] During the period from the fourth quarter of 1994 to the fourth quarter of 1997, the competitive providers' market share of the provider segment (i.e., high capacity services ultimately purchased by end users) increased from less than six percent to 28 percent.[59] The competitive providers' market share of the transport segment (i.e., high capacity services purchased by carriers for transport) also is growing rapidly, increasing from five percent to 16 percent between the second quarter and the fourth quarter of 1997 alone.[60] Perhaps the most significant trend statistic is the fact that, between the second and fourth quarters of 1997, competitive providers captured 54 percent of the growth in demand of the provider segment and 42 percent of the growth in demand of the transport segment.[61] Share of growth is the primary indicator of what a competitor's installed-base market share will look like in the future – and competitive providers in the Phoenix MSA have captured a majority share of market growth over the past several years.[62]

U S WEST's rapid reduction in market share is largely the result of facilities build-out on the part of competitive providers in the Phoenix area and their focus on the large business market. U S WEST's share of the facilities-provider market segment is likely to decrease rapidly as customers, particularly the largest carrier

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[58] Attachment C, Kahn and Tardiff Paper at 7. With this rate of growth, demand for high capacity services will double in about 5 1/2 years.

[59] Attachment A, Quality Strategies Report at 16.

[60] Id. at 14.

[61] Id. at 15.

[62] Id. at 7.

customers, migrate traffic onto their own fiber networks.[63] As discussed above, U S WEST already is feeling the impact of this migration. Kahn and Tardiff also assert that the recent strong growth in competitive provider market share is likely to continue, and may even accelerate, given the rapid growth of competitive provider market share nationwide.[64] They note that, during the first quarter of 1998, competitive providers added more business lines nationwide than the Regional Bell Operating Companies ("RBOC").[65]

Kahn and Tardiff compare the Phoenix area market share information with the situation the Commission considered when it granted AT&T non-dominant status for interstate long distance. While U S WEST's overall share of the Phoenix area market for high capacity services is higher than AT&T's share of the long distance market when the Commission found AT&T to be non-dominant (77 percent compared to 60 percent), U S WEST's market share of the retail segment is much lower than AT&T's.[66] According to Kahn and Tardiff, "we doubt there would be economists prepared to refer to a firm with 30 percent of the retail market as 'dominant.'"[67] Moreover, for both the retail and wholesale market segments, competitive providers' shares and volumes of the high capacity business in the

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[63] Id. at 31.

[64] Attachment C, Kahn and Tardiff Paper at 7.

[65] Id. at 8 (citing Statement of Heather Gold, FCC En Banc on State of Local Competition, January 29, 1998 and Salomon Smith Barney "CLECs Surpass Bells in Net Business Line Additions for the First Time," May 6, 1998).

[66] Id.

[67] Id.

Phoenix area are growing at a considerably more rapid rate than were AT&T's competitors' shares and volumes of the long distance business.[68] In their study, Kahn and Tardiff's state that "the consensus of economic opinion would be to place greater emphasis on changes in market shares over time and shares in incremental business than their absolute levels."[69] Accordingly, their conclusion is that U S WEST has a much stronger case for claiming a lack of market power in the Phoenix area market for high capacity services than did AT&T.[70]

3. Demand Elasticity

Demand elasticity refers to the willingness and ability of a carrier's customers to switch to a competitive provider, or to otherwise change the amount of services they purchase from the carrier in response to a change in the price or quality of the services. High demand elasticity indicates that customers are willing and able to switch to another service provider in order to obtain price reductions or desired features. It also indicates that the particular service market is subject to competition.[71]

In granting non-dominant status to AT&T, the Commission observed that the demands of business customers are highly elastic because they are sophisticated buyers who typically receive and consider alternative proposals from several

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[68] Id.

[69] Id.

[70] Id. at 9.

[71] Comsat Reclassification Order ¶ 71.

vendors.[72] They also are likely to engage in long-term planning and ordering.[73] The Commission's observation with respect to long distance services clearly applies with at least as much force to the segment of the business customer market that purchases high capacity services and facilities – medium to large business customers, governmental entities and other carriers.[74]

In support of their conclusion, Kahn and Tardiff reference the economic analysis prepared by Professor Michael Porter that AT&T submitted with its request for non-dominant status.[75] Porter found that business customers have considerable negotiating power because of their sophisticated knowledge of telecommunications, their use of outside network consultants, and their ability to provision their own network facilities. Kahn and Tardiff conclude that these factors "are even more powerful in the case of high capacity services" because of the fact that the primary users of these services – other carriers – have both the incentive and the ability to drive a hard bargain for good prices and levels of service by the threat of going elsewhere.[76] The ability of U S WEST's largest carrier customers to

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[72] AT&T Reclassification Order, 11 FCC Rcd. at 3306 ¶ 65.

[73] Comsat Reclassification Order ¶ 72.

[74] Attachment C, Kahn and Tardiff Paper at 9.

[75] Id. at 10 (citing Michael E. Porter, Competition in the Long-Distance Telecommunications Market, September 1993). Kahn and Tardiff note that the Commission cited the Porter Study when concluding that demand elasticity considerations supported the conclusion that AT&T was non-dominant in the long distance market. Id.

[76] Id.

migrate high capacity traffic to their own affiliated fiber networks further increases their bargaining ability in the marketplace.

As Kahn and Tardiff note, these demand elasticity factors are further reinforced by the already high market share U S WEST's competitors have in the retail segment of the Phoenix area market for high capacity services and the rapid growth of the competitors' market share in the provider and transport segments of the market.[77] Given that the actual provider of the underlying high capacity facilities is often unknown to the end-user customer, U S WEST's retail competitors can take advantage of their customer relationships to become the customer's facilities provider and to acquire additional business.[78] Moreover, so long as U S WEST remains subject to the prohibition in offering interLATA services, the ability of competitive providers to offer a complete package of telecommunications services which includes interLATA voice and data services gives them a "great advantage" over U S WEST in the marketplace.[79]

4. Supply Elasticity

Supply elasticity refers to the ability of suppliers in a given market to increase the quantity of services supplied in response to an increase in price. There are two factors that determine supply elasticities in the market. The first is the supply capacity of existing competitors, because supply elasticities tend to be high if existing competitors have or can easily acquire additional capacity in a relatively

[77] Id.

[78] Id.

[79] Id. at 11.

short time period.[80] The second factor is the existence of low barriers to entry, because supply elasticities tend to be high if new suppliers can enter the market relatively easily and add to existing capacity.

Quality Strategies has determined that U S WEST's competitors have more than sufficient readily available excess capacity to constrain U S WEST's pricing behavior. As a group, these five facilities-based competitors have installed more than 800 route miles of optical fiber in the Phoenix MSA, typically deploying cable consisting of 144 individual fiber elements along the network backbone.[81] With current technology, these competitive fiber networks should be capable of transporting more traffic than the Phoenix area will ever generate. Indeed, equipped as they are today, the competitive fiber backbone networks could handle all of U S WEST's end-user and transport traffic at less than eight percent capacity.[82]

The only real constraint on expanding service to U S WEST's customers in the near-term is the fact that competitive providers cannot provide service to "off-network" locations without building facilities to connect these sites to their fiber backbone networks. In most cases, this is not an issue at all. Approximately 65 percent of U S WEST's current high capacity demand in the Phoenix area is located within 100 feet of existing competitive provider fiber networks, which means that it

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[80] Comsat Reclassification Order ¶ 78.

[81] Attachment A, Quality Strategies Report at 6, 27. Attachment D hereto is a map illustrating the existing competitive provider fiber backbone networks in the Phoenix area.

[82] Attachment A, Quality Strategies Report at 29.

is essentially located "on-network." Thus, competitive providers could absorb a majority of U S WEST's high capacity demand almost immediately, incurring only minimal costs.

Moreover, as the attached report prepared by PEI demonstrates, competitive providers would not incur significant costs to extend their fiber networks to absorb the vast majority of U S WEST's current high capacity demand. Specifically, competitive providers in Phoenix can serve the almost 50 percent of U S WEST's high capacity customer locations within 1,000 feet of their existing fiber networks – which accounts for approximately 86 percent of U S WEST's current high capacity demand in the Phoenix area – if they invest $45 million.[83] In addition, competitive providers can serve all of U S WEST's high capacity customer locations within 9,000 feet of their existing fiber networks – which accounts for more than 95 percent of U S WEST's current high capacity demand in the Phoenix area – if they invest approximately $127 million.[84] As wireless technology continues to develop, high capacity fixed wireless alternatives will provide an alternative, low cost means of expanding these competitive fiber backbone networks.[85]

To put these figures into prospective, Kahn and Tardiff observe that U S WEST's current high capacity customers generate about $50 million of revenue

[83] Attachment B, PEI Study at 3. Attachment E hereto is a map showing competitive provider coverage of U S WEST's DS1 equivalent services, including a buffer area within 1,000 feet of existing competitive provider fiber networks.

[84] Attachment B, PEI Study at 3.

[85] Id.

annually in direct charges for high capacity facilities (i.e., for the "dial tone" alone).[86] This means that, based on plausible assumptions, the investment necessary to serve all that current business would be about 2.7 times revenues – a multiple "markedly lower" than U S WEST's current investment to revenue multiple of 3.2 for Arizona.[87] The investment ratios required for competitive providers to reach those customers located within 1,000 feet of the providers' existing fiber networks would be even more favorable.[88]

The investment to revenue comparisons are somewhat hypothetical exercises for considering whether competitive providers would find it economical to expand their networks to serve U S WEST's existing high capacity demand if it were to become available.[89] As such, the comparisons do not take into account the lost economies of scale and density that competitive providers would likely experience if they expand selectively to serve high volume/low cost locations.[90] On the other hand, Kahn and Tardiff state that focusing on scale economies sacrificed by targeting customers actually understates the attractiveness of serving current U S WEST high capacity locations, for two reasons.[91] First, because the high capacity market is growing, competitive providers can realize economies of scale by

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[86] Attachment C, Kahn and Tardiff Paper at 13.

[87] Id.

[88] Id.

[89] Id.

[90] Id.

[91] Id. at 14.

serving the incremental demand in addition to demand captured from U S WEST.[92] Second, it is important to recognize that the revenue figures only reflect payments for the use of the high capacity facilities – as such, they do not take into account the fact that competition increasingly involves the provision of a package of services (i.e., one-stop shopping).[93] Competitive providers that obtain access to a customer through their high capacity business have a vehicle for obtaining access to other higher margin services. This means that competitors may be willing to underprice their high capacity services in order to "capture" the customer. Taking the net revenues from bundled services into account would make the investment to revenue comparisons "markedly more favorable" according to Kahn and Tardiff.[94]

Another important consideration in assessing supply elasticity is the timeliness with which current competitors can expand facilities to meet new demand. PEI estimates that competitive providers can serve the 50 percent of current U S WEST-served locations that are within 1,000 feet of the providers' existing fiber networks in 18 to 24 months.[95] Kahn and Tardiff find that this time frame is "very significant" and consistent with the time frame envisioned in the Merger Guidelines for determining whether prospective new investments should be counted as a competitive presence disciplining the pricing behavior of firms

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[92] Id.

[93] Id. For example, ELI's President and Chief Operating Officer Dave Sharkey stated in a news release dated May 4, 1998: "We are witnessing the success of our bundled service strategy, as nearly 60% of our customers purchased multiple products and services." PR Newswire Association, Inc., May 4, 1998.

[94] Attachment C, Kahn and Tardiff Paper at 14.

contemplating a merger.[96] Although serving those customers beyond 1,000 feet would require additional time, the competitive providers' ability to do so is "competitively significant" according to Kahn and Tardiff.[97]

The impressive growth of competitive provider's market share in the Phoenix area market for high capacity services demonstrates that the cost of entry is not prohibitive.[98] This growth is reflected in tremendous growth in the number and size of competitive providers nationwide. In addition, competitive providers have been attractive takeover targets and are having no trouble attracting large amounts of capital in the financial market. For example, ELI went public in November 1997 and raised $128 million in its equity offering.[99] Kahn and Tardiff note that, in the two years since the passage of the 1996 Act, competitive providers have raised $14 billion of outside capital, whereas total annual investment by incumbent LECs has been about $18 billion.[100]

Nor are there legal barriers to entry.[101] Competitive providers have other market entry options in those areas where they choose not to deploy facilities. With the adoption of the 1996 Act, Congress implemented a comprehensive system of

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[95] Attachment B, PEI Study at 3.

[96] Attachment C, Kahn and Tardiff Paper at 14-15

[97] Id. at 15.

[98] Id.

[99] ELI also has a $400 million credit line, guaranteed by its parent company, Citizen's Utilities, which has an A+ rating with Standard & Poors. Citizen's other securities carry ratings that range from AA- to AA+.

[100] Attachment C, Kahn and Tardiff Paper at 16-17.

[101] Compare Comsat Reclassification Order at ¶ 82.

market-opening provisions that benefit both facilities-based carriers and pure resellers. This flexibility allows competitive providers to increase their market presence through resale beyond the reach of their existing fiber networks. It also allows them to increase their market share more quickly than would be possible solely through expansion of their own networks.

5. U S WEST's Cost, Structure, Size and Resources

In the AT&T Reclassification Order, the Commission addressed the question of whether AT&T's size relative to other carriers might give it a significant advantage in terms of scale economies and access to capital.[102] U S WEST does not enjoy any such advantage in the Phoenix area market for high capacity services. While the Commission considered the fact that AT&T faced at least two "full-fledged facilities-based competitors" in the long distance market,[103] U S WEST faces five established facilities-based competitors in the Phoenix MSA. As discussed above, the combined AT&T/TCG and MCI/MFS WorldCom entities have a significant advantage in terms of scale economies and access to capital, not to mention the advantage of being able to provide interLATA services.

According to the Kahn and Tardiff Paper, the continued feasibility and vitality of competitive entry in the Phoenix area market for high capacity services is shown by the fact that the rapid expansion of competitive entry has occurred at the

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[102] AT&T Reclassification Order, 11 FCC Rcd. at 3309 ¶ 73. The Commission recently held that Comsat does not have market power, notwithstanding its finding that Comsat has competitive advantages in size and access to resources. Comsat Reclassification Order ¶ 93.

[103] AT&T Reclassification Order, 11 FCC Rcd. at 3308 ¶ 70.

same time as incumbent charges for high capacity services have substantially declined.[104] In fact, when the first competitive providers entered the high capacity services market in the late-1980s, prices for high capacity services were approximately twice their current levels.[105] The fact that competitive activity in the market is accelerating while prices for services are dropping is a strong indication that investors do not believe incumbents have an insurmountable cost advantage in the market.[106]

C. U S WEST Lacks The Ability To Exercise Market Power In The Phoenix Market For High Capacity Services

The Commission has consistently held that a carrier is to be declared dominant only if it possesses market power in the relevant product and geographic market.[107] Conversely, a carrier qualifies as non-dominant if it lacks market power in the relevant market.[108] In making a determination about whether a carrier has market power, the Commission analyzes whether the carrier has the ability to "raise prices above competitive levels and maintain that price for a significant period, reduce the quality of the relevant product or service, reduce innovation or restrict output profitably."[109]

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[104] Attachment C, Kahn and Tardiff Paper at 17.

[105] Id. For example, U S WEST's rates for DS1 service fell by 43% from 1989 to 1998. Id.

[106] Id. at 17-18.

[107] AT&T Reclassification Order, 11 FCC Rcd. at 3346 ¶ 138.

[108] Id.

[109] Comsat Reclassification Order ¶ 67; see also In the Matter of The Merger of MCI Communications Corporation and British Telecommunications plc, Memorandum

Applying this standard to the evidence accumulated by U S WEST leads to the conclusion that U S WEST lacks the ability to exercise market power in the Phoenix area market for high capacity services. Following the approach the Commission previously used to assess market power for other services, Kahn and Tardiff conclude that the market for high capacity services in Phoenix "fully exhibits the indicia of competition that the Commission has prescribed."[110] In particular, Kahn and Tardiff rely on the following market characteristics: (1) U S WEST has a diminishing market share, serving only 30 percent of the retail market and providing barely half of the facilities that serve new demand; (2) customers (e.g., large businesses and other carriers) are highly sensitive to price and other service characteristics; (3) U S WEST's competitors have the ability to expand their facilities and capture U S WEST's existing business, and there are minimal barriers to entry; and (4) U S WEST's size does not provide it an insurmountable advantage.[111] In light of U S WEST's lack of market power, Kahn and Tardiff conclude that "competition itself, without dominant firm regulation, is sufficient to restrain [its] ability to impose anticompetitive prices and other conditions."[112]

Opinion and Order, 12 FCC Rcd. 15351, 15398 ¶ 124 (1997); Bell Atlantic/NYNEX Order, 12 FCC Rcd. at 20038 ¶ 101.

[110] Attachment C, Kahn and Tardiff Paper at 1.

[111] Id. at 20.

[112] Id. at 21.

III. FORBEARANCE FROM DOMINANT CARRIER REGULATION OF U S WEST IN THE PHOENIX MARKET FOR HIGH CAPACITY SERVICES IS WARRANTED

Section 10 of the 1996 Act requires that the Commission "forbear from applying any regulation or any provision of this [Act] to a telecommunications carrier or telecommunications service, or class of telecommunications carriers or telecommunications services, in any or some of its or their geographic markets" if the Commission finds that:

> (1) enforcement of such regulation or provision is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in connection with that telecommunications carrier or telecommunications service are just and reasonable and are not unjustly or unreasonably discriminatory;[113]
>
> (2) enforcement of such regulation or provision is not necessary for the protection of consumers;[114] and
>
> (3) forbearance from applying such provision or regulation is consistent with the public interest.[115]

In making the public interest determination, Section 10 requires that the Commission consider whether forbearance will promote competitive market conditions, including the extent to which forbearance will enhance competition among providers of telecommunications services.[116]

Based on the compelling economic evidence of the preceding section, U S WEST requests that the Commission forbear from regulating it as a dominant

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[113] 47 U.S.C. § 160(a)(1).

[114] 47 U.S.C. § 160(a)(2).

[115] 47 U.S.C. § 160(a)(3).

[116] 47 U.S.C. § 160(b).

carrier in the Phoenix area market for high capacity services. In particular, U S WEST seeks forbearance from the following Commission regulations: (1) the requirement that incumbent LECs (but not providers other than incumbent LECs) must file tariffs for interstate access services;[117] (2) Sections 61.38 and 61.41-61.49, which require dominant carriers to file tariffs on up to 15-days notice with cost support;[118] (3) Section 69.3(e)(7), which requires averaged rates within a study area;[119] (4) Sections 61.41-61.49, and 65, which impose price cap and rate of return regulation on dominant carriers;[120] and (5) any other rules that apply to U S WEST, but not other providers, in the Phoenix area market for high capacity services.

A. Dominant Carrier Regulation Of U S WEST's High Capacity Services In Phoenix Is Not Necessary To Ensure That Rates And Practices Are Just, Reasonable, And Not Unreasonably Discriminatory

The first statutory criterion for forbearance requires that the Commission determine whether dominant carrier regulation of U S WEST's high capacity services in the Phoenix MSA is necessary to ensure that rates and practices are just, reasonable and not unreasonably discriminatory. As the Commission recognized, it is "highly unlikely" that carriers lacking market power could successfully charge rates that violate the Act, because an attempt to do so would

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[117] See CAP Forbearance Order, 12 FCC Rcd. at 8596 (forbearing from requiring non-incumbent LEC providers of exchange access services to file tariffs).

[118] 47 C.F.R. §§ 61.38, 61.41-61.49.

[119] 47 C.F.R. § 69.3(e)(7).

[120] 47 C.F.R. §§ 61.41-61.49, 47 C.F.R. § 65.

prompt customers to switch to different carriers.[121] For that reason, the Commission has determined that tariffing is not necessary to ensure reasonable rates for carriers that lack market power.[122] In this case, the market for high capacity services in the Phoenix MSA is sufficiently competitive that there is no reason to regulate any carrier as dominant.

In the preceding section, U S WEST demonstrated that it does not possess market power in the Phoenix area market for high capacity services. Therefore, it should not be required to file dominant carrier tariffs and comply with other dominant carrier regulations, such as the rate averaging requirement. Rather, as is the case for every other non-dominant carrier in the high capacity market, U S WEST should be subject to permissive detariffing, which would allow, but not require, the filing of tariffs on one-day's notice with a presumption of lawfulness and without any cost support.[123] Marketplace forces will effectively preclude U S WEST from charging unreasonable rates for high capacity services in the Phoenix MSA.

Moreover, other regulations are sufficient to ensure that U S WEST does not

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[121] PCIA Forbearance Order ¶ 57 (citing CAP Forbearance Order, 12 FCC Rcd. at 8608 ¶ 23; In the Matter of Policy and Rules Concerning the Interstate, Interexchange Marketplace, Second Report and Order, 11 FCC Rcd. 20730, 20742-47 ¶¶ 21-28 (1996) ("IXC Forbearance Order")).

[122] CAP Forbearance Order, 12 FCC Rcd. at 8608 ¶ 23; IXC Forbearance Order, 11 FCC Rcd. at 20742-43 ¶ 21.

[123] CAP Forbearance Order, 12 FCC Rcd. at 8610 ¶ 27. It should be noted that the Commission tentatively concluded that it should adopt mandatory detariffing for interstate exchange access services, as it previously adopted for interexchange services. Id. at 8613 ¶ 34.

attempt to charge unreasonable rates. In particular, Sections 201 and 202 of the Act require that rates and practices be just, reasonable, and not unreasonably discriminatory.[124] The Commission can address any issue of unlawful rates or practices through the exercise of its authority to investigate and adjudicate complaints under Section 208.[125] As the Commission recently noted, Sections 201 and 202 provide important safeguards for consumers in areas that have been deregulated by the Commission.[126] In those circumstances where the Commission has reclassified carriers as non-dominant because they lack market power and reduced those carriers' regulatory burden, the Commission has continued to require compliance with Sections 201 and 202.[127]

It is also important to recognize that U S WEST is not seeking to impose restrictions on the resale of its high capacity facilities. The Commission has recognized that resellers exert downward pressure on rates through their ability to purchase service at high volume rates and pass through those savings to their customers.[128] In the Phoenix area market for high capacity services, where competitive providers already have captured 70 percent of the retail market segment, resellers clearly have the ability to exert such pressure. Thus, grant of U S WEST's Petition would not weaken the market forces that restrain U S WEST's

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[124] 47 U.S.C. §§ 201(b), 202(a).

[125] 47 U.S.C. § 208(a).

[126] PCIA Forbearance Order ¶ 31.

[127] Id. ¶ 17.

[128] Id. ¶ 35.

ability to charge unreasonable rates.

B. Dominant Carrier Regulation Of U S WEST's Dedicated High Capacity Services In Phoenix Is Not Necessary To Protect Consumers

The second statutory criterion for forbearance requires that the Commission determine whether dominant carrier regulation of U S WEST's high capacity services in Phoenix is necessary for the protection of consumers. As demonstrated in the previous section, dominant carrier regulation is not necessary to assure that U S WEST's rates and practices are just, reasonable and not unreasonably discriminatory. Because U S WEST lacks market power, rates for high capacity services will be effectively constrained by market forces. Further, the requirements of Sections 201 and 202 serve as an additional safeguard for consumers. Therefore, dominant carrier regulation of U S WEST also is not necessary to protect high capacity consumers from unreasonable rates or discriminatory practices. In fact, high capacity customers are being deprived of many of the benefits of competition in the Phoenix area market for high capacity services because of the continued regulation of U S WEST as a dominant carrier. Accordingly, the second criterion is satisfied.[129]

C. Forbearance From Applying Dominant Carrier Regulation To U S WEST's High Capacity Services In Phoenix Is Consistent With The Public Interest

The third statutory criterion for forbearance requires that the Commission determine whether forbearance from applying dominant carrier regulation to U S WEST's high capacity services in the Phoenix MSA is consistent with the public

[129] Id. ¶ 58; CAP Forbearance Order, 12 FCC Rcd. at 8609-10 ¶ 26.

interest. In making this public interest determination, the Commission considers whether forbearance will "promote competitive market conditions, including the extent to which forbearance will enhance competition among providers of telecommunications services."[130] Continuing to regulate U S WEST as a dominant carrier in the Phoenix area market for high capacity services results in competitive distortions that do not serve the public interest.

In the AT&T Reclassification Order, the Commission graphically described the significant social costs of continued asymmetrical regulation: (1) the longer tariff notices imposed on AT&T dampened its incentives to innovate because rivals could respond to innovations before they were allowed to go into effect; (2) the tariff filing requirements also dampened AT&T's incentives to reduce prices; (3) AT&T's competitors could use the asymmetrical regulatory process to delay and undermine its initiatives; and (4) regulation imposed administrative costs on both AT&T and the Commission.[131]

Kahn and Tardiff conclude that dominant carrier regulation of U S WEST in the Phoenix market for high capacity services market involves the same kinds of social costs.[132] The 15-day tariff notice requirement, which applies only to U S WEST, gives competitive providers the opportunity to respond to U S WEST's

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[130] Comsat Reclassification Order ¶ 151; see also PCIA Forbearance Order ¶ 27.

[131] Attachment C, Kahn and Tardiff Paper at 18 (citing AT&T Reclassification Order at ¶ 32); see also PCIA Forbearance Order at ¶ 30 (Forbearance with regard to broadband PCS carriers alone would create regulatory asymmetry with respect to cellular and other CMRS providers that would "distort competition and contradict the intent of Congress that CMRS providers should be treated similarly.")

[132] Attachment C, Kahn and Tardiff Paper at 18.

filed rate or be the first to market with a new service offering even before U S WEST's tariff becomes effective. Further, as a dominant carrier, U S WEST also is prohibited from responding to competition by charging deaveraged rates within the study area. If anything the social costs of dominant carrier regulation are compounded by the fact that U S WEST is prohibited from responding to competitive providers' bundled offerings, which may include interLATA voice and data services.[133]

Moreover, continuing to regulate U S WEST as a dominant carrier in a competitive market results in "umbrella" pricing, where competitors argue that U S WEST's proposed tariff rates are unlawfully low while pricing their own services below U S WEST's tariffed rates. The Commission has recognized that requiring tariff filings may facilitate tacit collusion by enabling carriers to "ascertain competitors' prices and any changes to rates, which might encourage carriers to maintain rates at an artificially high level."[134] In comparison, forbearance of the tariff filing requirements "will foster competition which will expand the consumer benefits of a competitive marketplace."[135] Thus, dominant carrier regulation reduces the incentive of all competitors to initiate price reductions and new services, and adversely affects U S WEST's ability to respond

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[133] Id. Kahn and Tardiff observe that, ironically, the incumbent LECs' Section 271 applications are being held-up pending demonstration that local markets are sufficiently open to competition. Id.

[134] Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, Second Report and Order, 9 FCC Rcd. 1411, 1479-80 (1994).

[135] Id.

quickly and creatively to competition.

Dominant carrier regulation also imposes significant compliance costs on U S WEST and administrative costs on the Commission which are unnecessary in a competitive environment. The submission of detailed cost support with each tariff filing increases the cost of implementing new services and rate structures. These regulatory costs are passed through to high capacity consumers in the form of higher rates. Because U S WEST is the only competitor in the Phoenix area market for high capacity services that is forced to incur the regulatory costs associated with dominant carrier regulation, it suffers a unique competitive disadvantage. In comparison, permissive detariffing of these services "would reduce administrative burdens on [U S WEST] and on the Commission, promote competitive market conditions, facilitate provision of new service offerings, and promote market entry."[136]

The Kahn and Tardiff Paper addresses some of the broader public interest issues at stake in this proceeding. In order to ensure the continued development and modernization of the public switched telephone network and the availability sophisticated and innovative services – both of which are the central goals of the 1996 Act – all competitors, including incumbents, must be free from restrictions and handicaps on their ability to compete in the marketplace.[137] Moreover, all competitors must be given the "full, undiluted incentives of a free market system" to

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[136] PCIA Forbearance Order ¶ 64 (comparing CAP Forbearance Order, 12 FCC Rcd. at 8610-12 ¶¶ 27-32).

[137] Attachment C, Kahn and Tardiff Paper at 18.

undertake the typically risky investments needed to drive innovation.[138]

Kahn and Tardiff describe two types of free market incentives. The first type is the stimulus of competition itself.[139] The strongest case for substituting competition for regulation is the superior ability of the former to exert pressure on all competitors in the Phoenix area market for high capacity services to be efficient and innovative if they are to survive, let alone prosper.[140] Kahn and Tardiff identify two illustrations of this effect: (1) the wholesale adoption of hub and spoke operations and the development of computerized reservation systems by the airlines after their deregulation; and (2) the widespread adoption of just-in-time inventory systems made possible only by deregulation which gave truckers the freedom to enter into bidding contracts with penalties for failure to perform according to stipulated standards.[141]

The second type is the self-interest of competitors, freed from continuing restrictions on the services and innovations they are permitted to offer.[142] In order to encourage innovation, competitors must be able to retain the profits from innovations that are successful, just as they are forced to bear the full cost of innovations that are failures. This symmetry can be achieved only through genuine

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[138] Id.

[139] Id. at 19.

[140] Id.

[141] Id.

[142] Id.

deregulation.[143]

As competition continues to develop in markets previously protected by regulation, the Commission should not weaken market-based incentives in a misguided effort to stimulate competition. Kahn and Tardiff point out that attempts to micromanage the process of deregulation, as has occurred in other industries, are more likely to produce distortions than to actually encourage efficient competition.[144] Ultimately, the Commission's incentive system should shrink regulatory restrictions to the absolute minimum and entrust protection of the public to a deregulated, competitive marketplace.[145]

The Commission's own experience with AT&T and the long distance industry demonstrates the public interest benefits of a free market system. At the time, the Commission's decision to reclassify AT&T as non-dominant was strongly opposed by AT&T's competitors. However, the Commission recognized that allowing AT&T to compete on equal terms with its competitors would spur increased competition in the long distance market. AT&T has continued to lose market share since it was declared non-dominant in 1995 while its competitors have thrived, indicating that the reclassification has not harmed competition.[146] Likewise, symmetrical regulation of U S WEST and competitive providers as non-dominant carriers would serve the public interest by promoting competitive market conditions and

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[143] Id.

[144] Id.

[145] Id. at 19-20.

[146] Attachment C, Kahn and Tardiff Paper at 20.

facilitating the introduction of new service offerings, service enhancements, and price reductions.

IV. REGULATING U S WEST AS A NON-DOMINANT CARRIER IN THE PROVISION OF HIGH CAPACITY SERVICES IN PHOENIX IS NOT TOTAL DEREGULATION

U S WEST is not requesting that its high capacity services be totally deregulated – it is requesting only that the Commission exercise its Section 10 forbearance authority and regulate U S WEST as a non-dominant carrier in the Phoenix area market for high capacity services. As discussed above, like other non-dominant carriers, U S WEST will still be subject to regulation under Title II of the Communications Act of 1934, as amended. For example, non-dominant carriers are required to offer interstate services under rates, terms and conditions that are just, reasonable and not unduly discriminatory.[147] In addition, non-dominant carriers are subject to the Commission's complaint process.[148] At this time, non-dominant carriers are also required to give notice prior to discontinuance, reduction or impairment of service.[149]

As a non-dominant carrier, however, U S WEST would enjoy streamlined regulation equal to that of all its competitors in the Phoenix area market for high capacity services. First, U S WEST would be subject to permissive detariffing, which would allow, but not require, the filing of tariffs for interstate high capacity services on one-day's notice with a presumption of lawfulness and without any cost

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[147] 47 U.S.C. §§ 201(b), 202(a).

[148] 47 U.S.C. §§ 208(a).

[149] 47 U.S.C. § 214.

support. Second, U S WEST's high capacity services in the Phoenix area would be removed from price cap and rate of return regulation, which are appropriate only for dominant carrier services. Third, U S WEST would be allowed to charge deaveraged rates for high capacity services within the Phoenix MSA. The effect of granting U S WEST's Petition would be to place U S WEST on equal footing with all other competitors in the Phoenix area market for high capacity services.

V. CONCLUSION

Congress adopted Section 10 because it recognized that regulation is unnecessary, and indeed harmful, in a competitive market. Under Section 10, the Commission is required to eliminate regulations that are no longer necessary to ensure that rates and practices are just, reasonable and not unreasonably discriminatory. U S WEST has gathered substantial evidence in support of its petition demonstrating that the market for high capacity services in the Phoenix MSA is robustly competitive. In light of U S WEST's lack of market power, competition, without dominant carrier regulation, is sufficient to constrain U S WEST's ability to impose anti-competitive prices and other terms and conditions of service.

Section 10 also requires that the Commission consider whether forbearance will promote competitive market conditions. There is no question that allowing U S WEST to compete on equal footing with its competitors serves the public interest and enhances competition. Today, U S WEST is uniquely burdened by dominant carrier regulations that hamper its ability to freely compete in the Phoenix area market for high capacity services. Removing these regulatory

obstacles will allow U S WEST to initiate price reductions and new services, and respond quickly and creatively to competition.

For these reasons, the Commission should grant U S WEST's Petition and exercise its authority to forbear from regulating U S WEST as a dominant carrier in the provision of high capacity services in the Phoenix MSA.

Respectfully submitted,

U S WEST COMMUNICATIONS, INC.

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Its Attorneys

Of Counsel,
Dan L. Poole

August 24, 1998

ATTACHMENT A

U S WEST

HIGH CAPACITY MARKET STUDY

PHOENIX

METROPOLITAN STATISTICAL AREA

August 7, 1998

QUALITY STRATEGIES®
WASHINGTON, D.C.

TABLE OF CONTENTS

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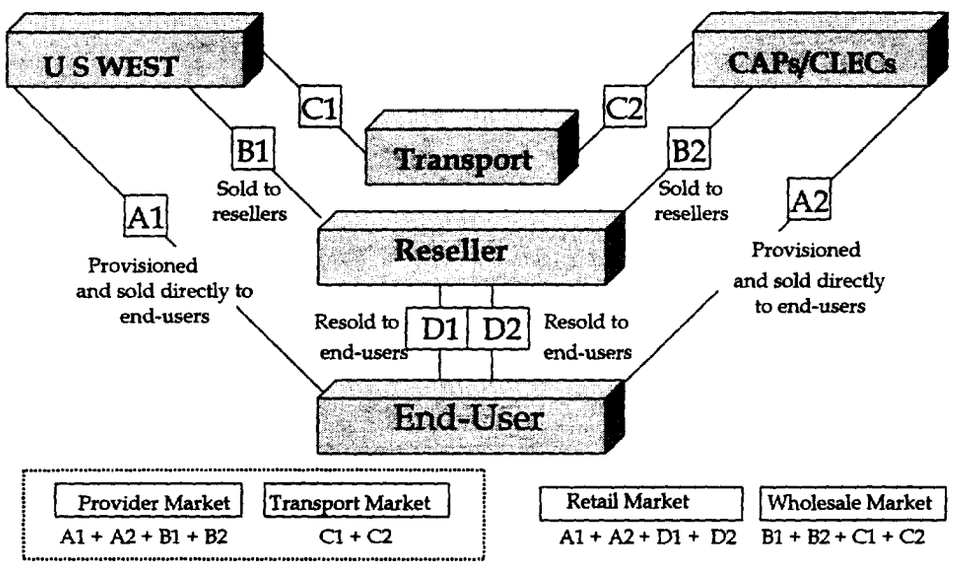
EXECUTIVE SUMMARY

This report analyzes the state of competition in the market for high capacity telecommunications services (i.e., DS1 and above) in the Phoenix, Arizona, metropolitan area. QUALITY STRATEGIES was asked to: describe the Phoenix High Capacity Market; describe the market participants; estimate the market shares of U S WEST and the other market participants; and to estimate the capacity of competitive providers of high capacity services in Phoenix.

The Phoenix market for high capacity services can be best described as a three tier market, as illustrated below, with U S WEST and other CAP/CLEC providers selling services to end users, resellers, and other carriers for "transport" purposes. This market can be sub-divided based on who high capacity services are sold to – Retail and Wholesale Markets – versus who is actually providing the underlying facilities – the Provider and Transport Markets.



Prior to the mid-1990's U S WEST largely had the Phoenix High Capacity Market to itself. Since 1994, MCI, GST, TCG, ELI, and MFS WorldCom have all turned-up high capacity networks in Phoenix. All of these competitors are seasoned well-financed telecommunications companies. Collectively, these five competitors have installed over 800 route miles of optical fiber and have connected several hundred buildings in the Phoenix area to their networks.

The growth in alternative fiber networks is reflected in market share data. In all cases, U S WEST's market share appears to be declining at a relatively rapid rate. As of the end of 1997, only 30% of the retail customers purchased high capacity services directly from U S WEST. The other 70% purchased services from resellers and other CAPs/CLECs. The situation was reversed with respect to the actual provision of high capacity service – where U S WEST accounted for 72.1% of the Provider Market and 84.1% of the Transport Market with the other providers accounting for the remainder. Even these relatively high market shares represent a significant decrease from the end of 1994 when U S WEST serviced 94.1% of the Provider Market.

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Recent data indicates that other CAPs/CLECs are capturing approximately half of the growth in high capacity services, in the rapidly growing Phoenix market. Between the second and the fourth quarters of 1997, providers other than U S WEST accounted for 54% of the growth in the Provider Market and 42% of the Transport Market. This trend is expected to continue due to the fact that U S WEST competitors in Phoenix have an enormous amount of unused capacity in their existing fiber networks. It is estimated that less than 8% of the capacity of these competitive networks would be needed to handle all of U S WEST's existing traffic.

Both U S WEST's relatively low Retail Market share and the large amount of unused capacity in competitive networks make it highly likely that U S WEST's share of the Provider and Transport Markets will continue to decline. This decline will be exacerbated, particularly in the Transport Market, by continued consolidation in the telecommunications industry (e.g., the merger of AT&T and TCG).

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INTRODUCTION

BACKGROUND

Although the Telecommunications Act of 1996 formally opened the local exchange market to competition for the first time, U S WEST has been experiencing competition of another type for several years. In the early part of the 1990s, Competitive Access Providers (CAPs) began installing fiber facilities in the Phoenix Metropolitan Statistical Area (MSA) to compete directly with the incumbent local exchange carrier, U S WEST, for a portion of its market.

Primarily, the CAPs began offering high capacity (DS-1 and DS-3) circuits to end-users and carriers as a means of bypassing the local exchange carrier (U S WEST). High capacity circuits are used to transport traffic between end user premises, from end-user premises to carrier Points of Presence (POPs) or to transport traffic between POPs and Central Offices (COs) or tandems.

THE HIGH CAPACITY MARKET

The High Capacity Market can be segmented in several ways. First, because high capacity circuits are used for two distinct purposes, two separate sub markets emerged: 1.) the Provider Market and 2.) the Transport Market. For purposes of this study, we will refer to the combination of the two as the High Capacity Market. Please refer to the graphic on page 9 for a visual description of this concept.

- Provider Market: Provider circuits are DS-1 and DS-3 circuits provisioned by a facilities-based local telecommunications provider (either U S WEST or a CAP). These circuits are ultimately purchased by end-users to transmit voice and data traffic from the end user's premise to a POP or CAP switching center. The provider does not always sell the circuit directly to the end user.
- Transport Market: Transport circuits are high capacity lines purchased by carriers to transmit voice and data traffic from one POP to another or to transmit voice and data traffic from a POP to a Central Office or tandems (for distribution). Transport circuits are purchased by one communications company from another communications company.

The overall High Capacity Market can also be viewed as consisting of a Wholesale Market and a Retail Market. Often a Local Exchange Carrier or CAP provisions a circuit, it does not necessarily maintain the account or bill for it – because it is often resold by another carrier. Because of this situation, QUALITY STRATEGIES is also providing Retail and Wholesale views of the High Capacity Market.

- Retail Market: the retail view is another method of distributing provider share. Instead of crediting the company that provisions the circuit, it credits the company that sells and bills for the circuit and maintains the relationship with the end user.
- Wholesale Market: the wholesale view consists of circuits provisioned by a local telecommunications provider (either U S WEST or a CAP) and sold to another telecommunications provider – either for resale to end users or for transport. Please refer to the graphic on page 9 for a visual description of this concept.

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These distinct views became necessary as the High Capacity Market began to mature and purchasing patterns began to deviate from the typical provider - purchaser standard. From the outset, CAPs attempted to form alliances with long distance carriers to provide the private lines linking their customers to their POPs, as well as providing their transport facilities. It is from these beginnings that the concept of High Capacity resale was formed necessitating the Retail and Wholesale views to supplement Provider and Transport views. At present, many CAPs operating in the Phoenix market sell more circuits to long distance carriers than to end users. Because of this, Provider and Retail market share figures illustrate very distinct distributions, although both measure the same market.

COMPETITORS

Currently, the following five CAPs operate networks in the Phoenix MSA (Maricopa and Pinal Counties) and compete with U S WEST for Provider and Transport market share:

- MFS WorldCom
- Teleport Communications Group (TCG)
- MCI
- GST
- Electric Lightwave, Inc. (ELI)

Each of the five aforementioned competitors has invested resources to build optical fiber networks in the Phoenix area that compete directly with U S WEST. Collectively, the five competitors have installed over 800 route miles of optical fiber and connected several hundred buildings to their networks. Equipped as they are today, the CAPs could assume all of U S WEST's Provider and Transport traffic with their networks at less than 8% capacity. This would leave the other 92% to capture future growth of bandwidth demand.

Because the High Capacity (Transport and Provider) Market is very specialized, the CAPs have become niche communications providers catering to interexchange carriers and business customers in particular vertical segments (particularly financial services, health care, and information transfer). This has allowed CAPs to focus on small geographic areas when constructing fiber networks (particularly central business districts and business-intensive suburbs).

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MARKET SHARE

To formulate market share estimates, QUALITY STRATEGIES considered several inputs. Results are primarily based on primary, survey market research that elicits share figures based on end user data. Additionally, QUALITY STRATEGIES analysts conducted an exhaustive competitive research analysis to gather additional information about each market examined.

As of the fourth quarter of 1997, U S WEST's share of the High Capacity Market was 77%. During this time, U S WEST share of the Provider Market was 72%. In other words, U S WEST facilities constituted 72% of circuits being used by end users for DS-1 and DS-3 high capacity services. U S WEST retained less than 30% of the Retail Market - meaning U S WEST maintained a relationship with fewer than one third of all end users in the fourth quarter of 1997. The disparity is largely the result of carrier purchases of U S WEST/CAP circuits for resale to end-users.

In the fourth quarter, U S WEST circuits constituted approximately 84% of the Phoenix Transport Market (down from 94% in the second quarter of 1997). CAPs generally install extraordinary amounts of excess capacity around long distance POPs and local COs and are capable of absorbing traffic from U S WEST facilities immediately. This is the primary reason for the significant drop in market share between the second and fourth quarters of 1997; by installing excess capacity, CAPs have facilitated a situation where traffic can be easily migrated from one carrier's facilities (U S WEST) to another's (Phoenix CAPs). U S WEST's Transport share is particularly vulnerable to competitors as long distance carriers and CAPs begin to consolidate.

In addition to the Transport Market, recent telecom mergers and consolidations are likely to impact the Wholesale Market. In the fourth quarter of 1997, U S WEST accounted for approximately 79% of the Wholesale Market, which includes circuits sold to carriers for purposes of resale or for transport. As CAPs' and carriers' relationships grow, carriers are less likely to purchase wholesale circuits from U S WEST and become more reliant on acquired subsidiaries.

The continuing trend toward a declining market share for U S WEST becomes evident through an examination of its share of market growth over the last several quarters. Between the second and fourth quarters of 1997, U S WEST accounted for 58% of Transport Market growth and 46% of Provider Market growth. Losses in market growth may not become evident in installed-base share results for several quarters as the market grows and U S WEST accounts for a smaller percentage of the total. Share of growth is the primary indicator of how a competitor's installed-base market share will look in the future - and CAP competitors in the Phoenix area have captured a majority share of market growth over the past several years.

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OBJECTIVES

The primary objective of this report is to provide U S WEST with a high-level overview of the Phoenix MSA (Maricopa and Pinal Counties) High Capacity Market. The report is structured to meet this objective by providing:

- A description of the High Capacity Market and sub-markets
- A description of the High Capacity competitive landscape in the Phoenix MSA
- An estimate of the potential competitive capacity of existing fiber networks
- Market share estimates for U S WEST and its competitors

This report describes and defines the Phoenix MSA High Capacity Market, identifies the types of circuits included in the share estimates, briefly describes common high capacity applications, and identifies and describes the strengths and weaknesses of facilities based competitors in the Phoenix MSA. The competitive analysis identifies market trends, carrier consolidation, and purchaser capacity requirements.

CAPABILITIES AND EXPERIENCE

QUALITY STRATEGIES is a research and consulting firm working exclusively in the telecom industry. QUALITY STRATEGIES has provided competitive market information, including market share results and competitive market data to every RBOC and large LEC for the last decade.

QUALITY STRATEGIES maintains its own professional team of analysts, methodologists, client service personnel and calling centers focused exclusively on the telecommunications market.

QUALITY STRATEGIES believes that quantitative market share data can be coupled with qualitative competitive data to accurately describe and assess the market for high capacity circuits. The information provided in each section is designed to supplement that from the other. This analysis is based on primary and secondary market research conducted for U S WEST. Market Share estimates reflect fourth quarter, 1997 analyses. Overall Provider and Retail estimates are based on a 95% confidence interval with a ±5% margin of error. Wholesale and Transport market share estimates are primarily the result of extensive competitive research. (see appendix for additional information on methodology).

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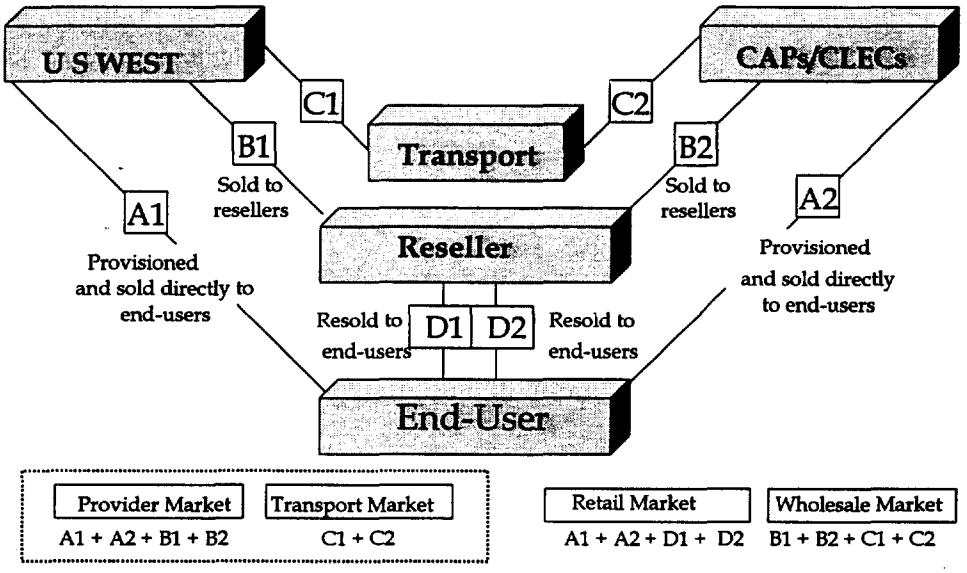
MARKET DESCRIPTION

HIGH CAPACITY MARKET

QUALITY STRATEGIES defines the High Capacity Market as the universe of DS-1 (1.544 mbps) and DS-3 (45 mbps) circuits used either for end user customer's traffic (Provider) or for carrier transport (Transport).

- End users utilize high capacity circuits to connect two business locations in the same LATA (point-to-point) or to connect to a carrier's point-of-presence (POP) (special access).
- Carriers utilize high capacity transport circuits to provide links between POPs, central offices, and tandems.

The following diagram depicts the various components of the High Capacity Market, which is represented by the sum of A1, A2, B1, B2, C1 and C2.



PROVIDER MARKET

Provider circuits are DS-1 and DS-3 circuits provisioned by a facilities-based local telecommunications provider (either U S WEST or a CAP). These circuits are ultimately purchased by end users to transmit voice and data traffic from the end user's premise to a POP or CAP switching center. The provider does not always sell the circuit directly to the end user. Referring to the visual, the Provider Market is defined as A1+A2+B1+B2.

TRANSPORT MARKET

Transport circuits are high capacity lines purchased by carriers to transmit voice and data traffic from one POP to another or to transmit voice and data traffic from a POP to a central office or tandems (for distribution). Transport circuits are purchased by one communications company from another communications company. Referring to the graphic, the Transport Market is comprised of C1+C2.

THE RETAIL MARKET

The retail view is another method of distributing Provider share. Instead of crediting the company that provisions the circuit, the Retail Market credits the company that sells and bills for the circuit and maintains the relationship with the end user. The Retail Market is defined as A1+A2+D1+D2 (see diagram page 9).

THE WHOLESALE MARKET

The wholesale view consists of circuits provisioned by a local telecommunications provider (either U S WEST or a CAP) and sold to another telecommunications provider - either for resale to end users or for transport. The Wholesale Market is comprised of B1+B2+C1+C2 (see diagram page 9).

MARKET SHARE

Because the Phoenix market has become increasingly competitive over the last two years, U S WEST has experienced rapid, consistent erosion of its High Capacity Market share. QUALITY STRATEGIES has been tracking U S WEST's Provider Market share since 1994 and its Transport Market share since 1997. As could be expected, U S WEST's share of each market has decreased substantially as CAPs have entered the market and expanded existing facilities.

Following are several views of the High Capacity Market. All of the charts include DS-1 and DS-3 circuit information. On some of the charts DS-0 circuit information is also included. The charts which include DS-0 circuits are clearly labeled. DS-0 circuits are included because in some views of the market the survey results included DS-0 circuits and this information cannot be extracted. Overall the DS-0 circuits when converted to DS-1 equivalents do not appreciably affect the results, accounting for approximately 3% of the market.

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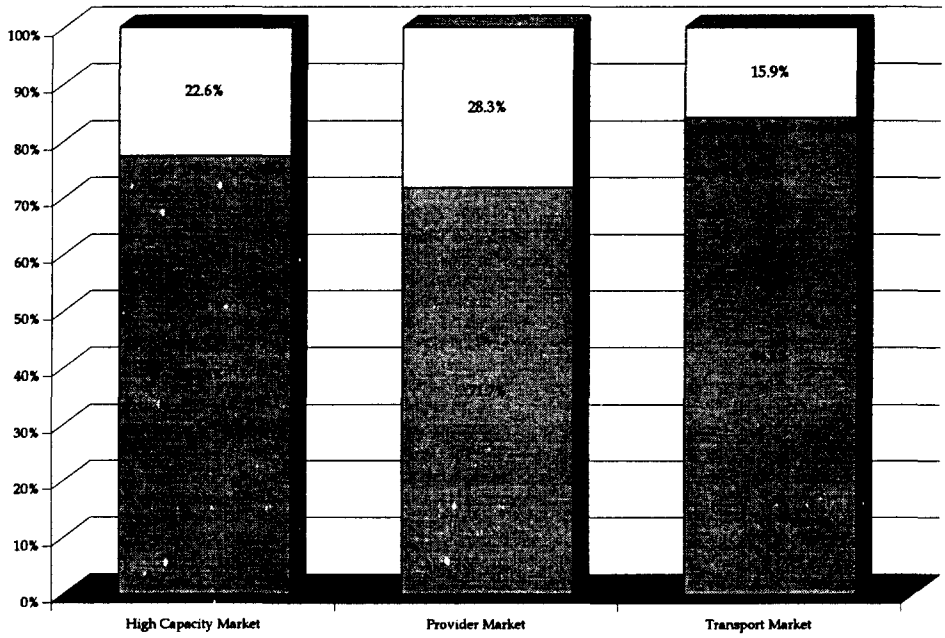
HIGH CAPACITY MARKET

U S WEST's market share for the fourth quarter of 1997 accounts for approximately 77% of the High Capacity Market in the greater Phoenix area. The market is comprised of the Provider Market (in which U S WEST accounts for approximately 72% of the total) and the Transport Market (in which U S WEST accounts for 84%).

PHOENIX MSA
U S WEST HIGH CAPACITY MARKET SHARE
4Q97



	U S WEST	Competitors
High Capacity	77.4%	22.6%
Provider	71.7%	28.3%
Transport	84.1%	15.9%

Results for Provider Market are presented at a 95% Confidence Level with a ±5% Margin of Error.

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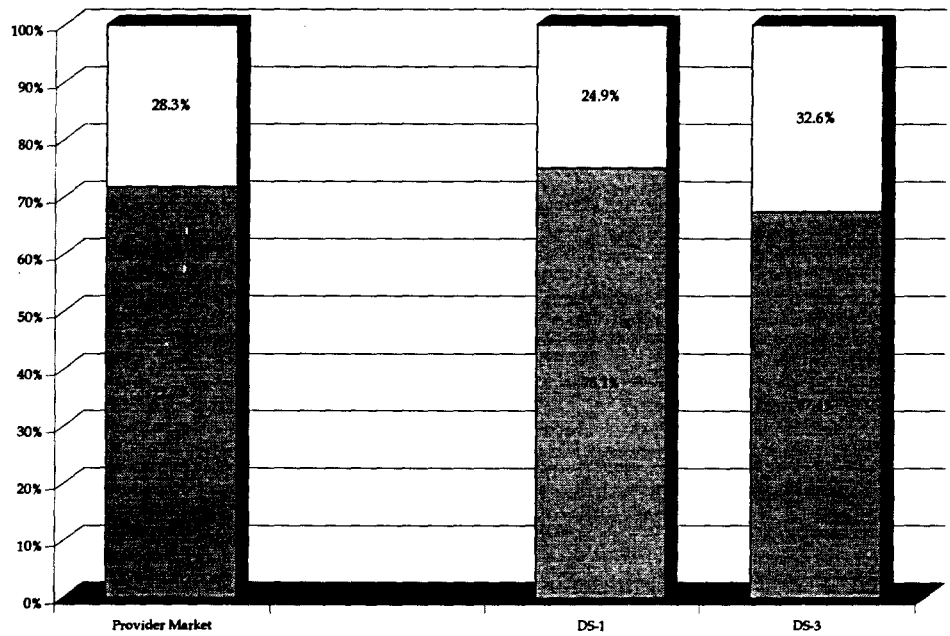
PROVIDER MARKET

To date, facilities-based competitors have captured over 28% of the Provider High Capacity Market in the Phoenix MSA. This can be attributed to recent marketing campaigns geared toward the end user and a proliferation of competitive alliances between CAPs and long distance carriers.

The High Capacity study was designed to measure U S WEST's and its competitors' share of DS-1 and DS-3 circuits. As a provider, U S WEST's share of the DS-3 market has declined more rapidly than its share of the DS-1 market. This is largely attributable to competitor's marketing strategies that attempt to secure accounts from large, bandwidth-intensive businesses. Because many of the larger businesses end users are located in Phoenix's central business district, competitors have been able to reach them on a facilities basis without investing a substantial amount of resources in infrastructure.

PHOENIX MSA
U S WEST PROVIDER MARKET RESULTS (BY CIRCUIT SPEED)
4Q97



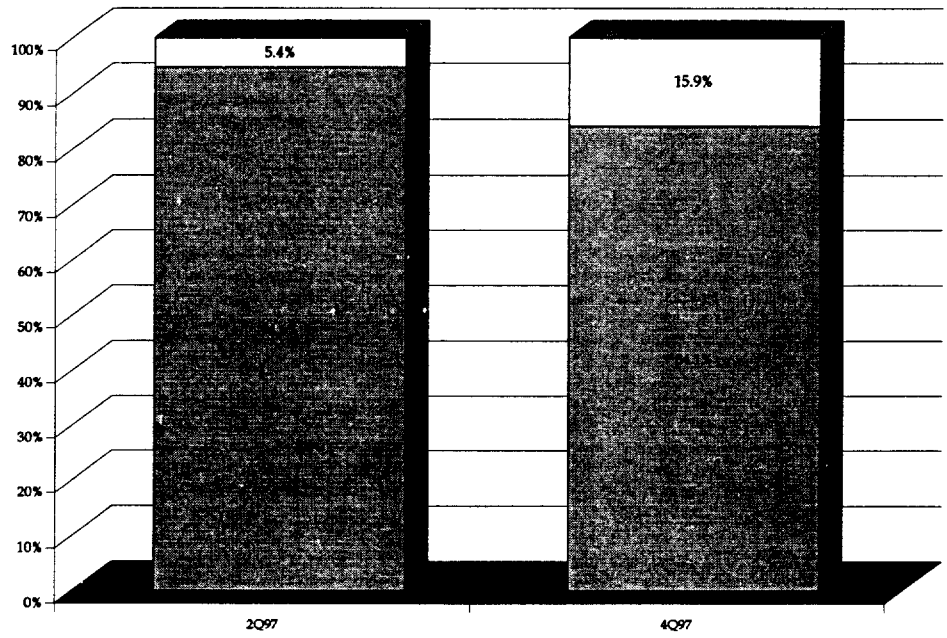
	U S WEST	Competitors
Provider Market	**71.7%**	**28.3%**
DS-1	75.1%	24.9%
DS-3	67.4%	32.6%

Results for Provider Market are presented at a 95% Confidence Level with a ±5% Margin of Error. Disaggregated Share results have higher margins of error to account for smaller sample sizes

TRANSPORT MARKET

As has been the case in the Provider Market, CAPs are beginning to capture a large percentage of the Transport Market. As of fourth quarter, 1997, competitors comprise roughly 16% of the Transport Market, up from 5% in the second quarter of 1997. This is largely the result of a desire on the part of carriers to minimize dependence on U S WEST. Additionally, CAP share of the Transport Market is likely to increase substantially as they are absorbed by interexchange carriers and other, large telecommunications companies. Although U S WEST's share of the Transport Market is higher than its share of the Provider Market, Transport Market incremental losses have been far greater recently (over 10% since second quarter 1997) as CAPs and carriers have merged and formed competitive alliances. While U S WEST's market position is vulnerable in each market, many analysts foresee the rapid erosion of RBOC Transport Market share in the near future

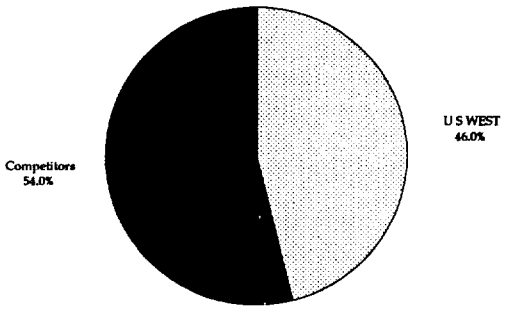
PHOENIX MSA
TRANSPORT MARKET SHARE
2Q97-4Q97



	2Q97	4Q97
U S WEST	**94.6%**	**84.1%**
Competitors	**5.4%**	**15.9%**
	100.0%	100.0%

PROVIDER MARKET GROWTH

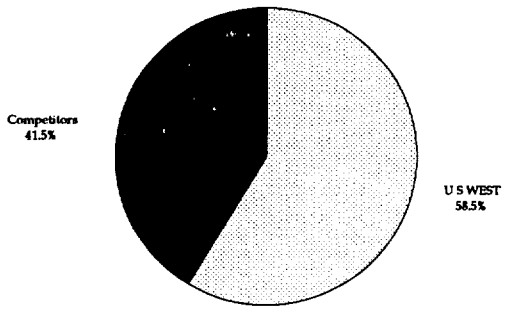
One of the key indicators of future market share in the telecommunications market is share of market growth in the present. Market growth is defined as new market growth (new subscriptions), the conversion of switched lines to high capacity facilities and competitive conversions. From the second quarter of 1997 to the fourth quarters of 1997, QUALITY STRATEGIES estimates the Provider Market grew 6.5%. Although U S WEST accounts for over 72% of Provider high capacity circuits, U S WEST accounted for roughly only 46% of the market growth. Facilities based competitors were responsible for over one half of new high capacity circuits added between June and September. At this rate, U S WEST can expect its share of the installed base to diminish to its share of market growth.



	2Q97 - 4Q97
U S WEST	46.0%
Competitors	54.0%
	100%

TRANSPORT MARKET GROWTH

Although U S WEST's share of the Transport Market growth is higher than its share of Provider Market growth, the facilities-based competitors account for a substantial percentage. Between the second and fourth quarters of 1997, U S WEST was responsible for less than 59% of new transport circuits. At this pace, U S WEST can expect its share of the installed base to continue to decline.



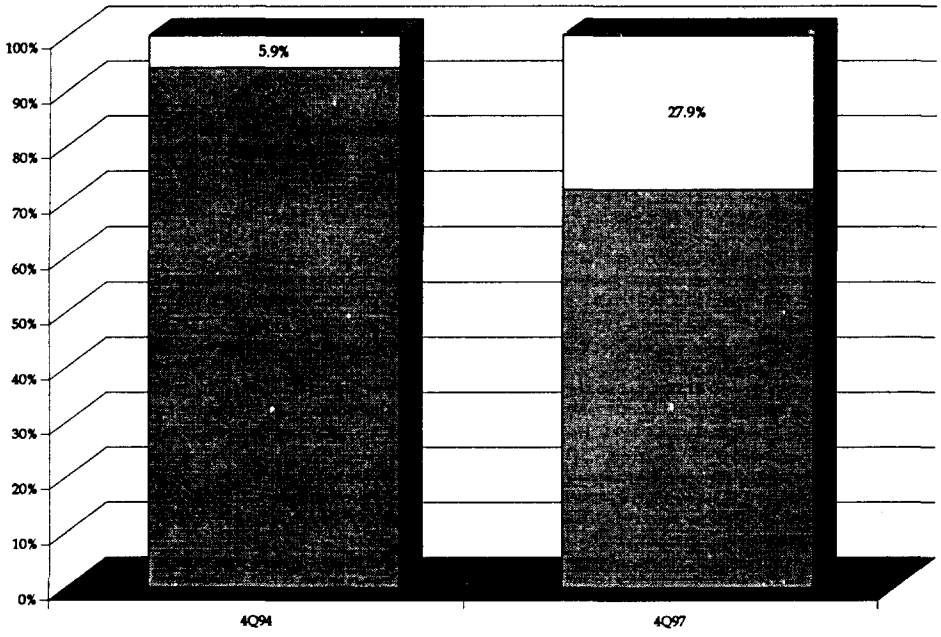
	2Q97 - 4Q97
U S WEST	58.5%
Competitors	41.5%
	100.0%

TREND

The most effective means of demonstrating U S WEST Provider Market share loss is to view its share over time. QUALITY STRATEGIES has been tracking high capacity data for U S WEST since the fourth quarter of 1994. Since that time, U S WEST has relinquished a considerable portion of the Provider Market. In 1994, TCG was the only CAP operating in the city - and its network was limited at that time. Over the next three years, the CAP presence in the Phoenix MSA grew rapidly and conversely, U S WEST's market share fell rapidly.

The following chart provides market share trend data. Trend includes DS-1, DS-3, and DS-0 circuits.

PHOENIX MSA
PROVIDER MARKET SHARE TREND*
4Q94-4Q97



	4Q94	4Q97	*Δ 4Q 94–4Q 97*
U S WEST	**94.1%**	**72.1%**	*-22.0%*
Competitors	**5.9%**	**27.9%**	*22.0%*
	100.0%	100.0%	

*Trend data for the Provider Market includes DS-0, DS-1, and DS-3 circuits.
Results for the Provider Market are presented at a 95% Confidence Level with a ±5% Margin of Error.

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RETAIL MARKET

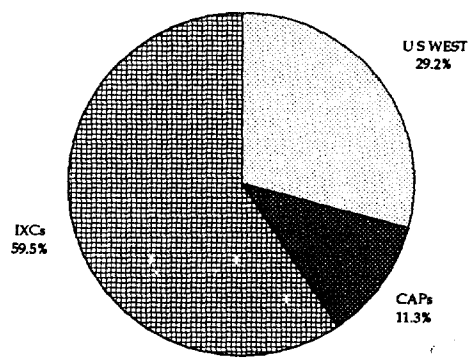
As indicated previously, the High Capacity Market can also be viewed as Retail and Wholesale Markets. In the Retail Market, competitors account for approximately 70% of end user relationships. U S WEST's largest competitors are currently AT&T, MCI, and Sprint. However, the vast majority of IXC-billed high capacity circuits are resold by the carrier rather than provisioned directly. As of fourth quarter 1997, AT&T's and TCG's combined retail share accounts for a greater percentage of the total market than U S WEST. Following completion of the AT&T/TCG and WorldCom/MCI mergers, the two aforementioned providers will comprise over 50% of the Retail Market.

This Retail data includes DS-1, DS-3, and DS-0 circuits.

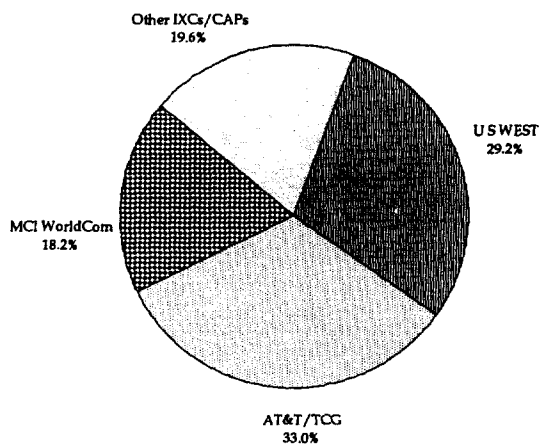
PHOENIX MSA

U S WEST MARKET SHARE OF THE RETAIL MARKET*

4Q97



RETAIL SHARE (U S WEST AND COMPETITORS)



Retail Share (IXCs and Acquired CAPs shown together)

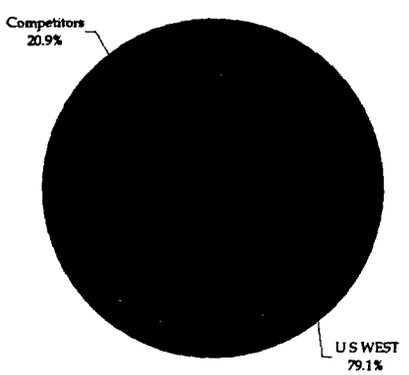
*Retail Market includes DS-0, DS-1, and DS-3 circuits.
Results for the Retail Market are presented at a 95% Confidence Level with a ±5% Margin of Error. Disaggregated Share results have higher margins of error to account for smaller sample sizes.

WHOLESALE MARKET

Currently, U S WEST accounts for less than 80% of the Wholesale Market (defined as the universe of circuits sold to resellers and circuits used for transport). However, U S WEST's share is likely to decrease substantially over the next several quarters following the completion of recent mergers in the telecom industry. AT&T and MCI will begin to take advantage of having local facilities at their disposal and attempt to decrease the amount of business it conducts with the RBOCs.

Wholesale data includes DS-1, DS-3, and DS-0 circuits.

PHOENIX MSA
U S WEST MARKET SHARE OF THE WHOLESALE MARKET*
4Q97



	4Q97
U S WEST	**79.1%**
Competitors	**20.9%**
	100.0%

*Wholesale Market includes DS-0, DS-1, and DS-3 circuits.

COMPETITIVE LANDSCAPE

OVERVIEW

As one of the largest MSAs in the nation, Phoenix has become home to numerous communications-intensive businesses that require high capacity DS-1 and DS-3 services. Phoenix is one of the most rapidly growing areas in the United States, with demand for these high capacity services expected to escalate. Analysts project that the Phoenix area will sustain an annual immigration rate of over 50,000 people for the next 15 years. This figure does not even take into account the area's birth rate, which is also likely to be higher than the national average due to Phoenix/Maricopa County's low median age. This growth in population will demand expansion of the telecommunications infrastructure to provision these high capacity services. U S WEST and its competitors will focus on meeting this demand.

Phoenix is currently host to one of the most competitive telecommunications markets in U S WEST's territory. While competitors' facilities once focused on the central business district exclusively, investments in network build-out over the last 24 months have resulted in fiber facilities that reach the furthest-lying suburbs. Today's competitive fiber networks connect several hundred buildings in Phoenix and transmit voice and data traffic for a variety of services including local exchange, high capacity, long distance and data.

U S WEST's competitors in the greater Phoenix area include facilities based CAPs such as TCG, WorldCom, ELI, GST and MCI. These companies offer a wide array of telecommunications products and services. A brief overview of these companies and their competitive presence in the Phoenix area follows.

COMPETITORS

MFS WORLDCOM

MFS WorldCom (formerly Metropolitan Fiber Systems) was established in the mid 1980s and partially financed by the Peter Keiwet construction company of Omaha, NE. In 1996, the assets of MFS were purchased by Jackson, MS-based LDDS WorldCom in an exchange of debt. MFS WorldCom operates metropolitan fiber networks in over 50 of the largest markets in the United States and is generally regarded as one of the leaders in competitive local telecommunications. In 1997, it purchased Brooks Fiber Properties and assumed its fiber networks in several tier II and tier III markets throughout the United States.

In Phoenix, MFS WorldCom's network has been operational since 1995 when it initiated service to several large end users and every major carrier in the central business district. Since then, the network has expanded to encompass a much broader geographic area.

MFS WorldCom's Phoenix network consists of four overlapping SONET rings featuring backbone speeds of OC-48. It is equipped with backup power sources and route diversity. In 1997, MFS WorldCom installed a central office switch in Phoenix that will allow it to diversify its product offering with the rollout of local exchange services. It currently operates two equipment sites in the area, one downtown and one on 44th Street. Currently, there are over 50 single and multi-tenant buildings connected to WorldCom's network in the Phoenix MSA.

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Traditionally, MFS WorldCom has targeted the middle market for telecommunications services. Although many of its high capacity customers represent the large business segment, a large percentage of its local exchange customers are smaller organizations. In several markets, MFS WorldCom has purchased telecommunications providers to establish a customer base - including several Centrex resellers in California. Although MFS has worked with every major IXC over the last several years, it prefers to sell directly to the end user and maintain the account itself. This is particularly true following the LDDS/WorldCom merger.

TELEPORT COMMUNICATIONS GROUP (TCG)

Along with MFS WorldCom, TCG is a national CAP/CLEC operating fiber networks in 60 of the United States' largest markets. It has been in existence since the late 1980s when it was founded by Robert Annunziata, a former AT&T employee who was then working for Merrill Lynch in New York. Mr. Annunziata is often credited for starting the CAP movement when he installed a fiber link connecting Merrill Lynch's Manhattan headquarters to the company's teleport on Staten Island. Initially, TCG was financed by Merrill Lynch but was later spun off and financed by several leading cable companies, Sprint, and public debt offerings.

TCG was among the first entrants to the Phoenix communications market when it initiated service along its fiber network in 1994. Presently, TCG operates the largest fiber network in the greater Phoenix area; spanning over 300 route miles and connecting between 120 and 150 single and multi-tenant buildings. TCG's network is composed of 11 self-healing SONET rings and is capable of providing facilities-based service to the majority of the MSA's business-intensive localities, including: downtown Phoenix, Scottsdale, Tempe, Mesa, and Chandler. Currently, TCG operates three equipment sites in the greater Phoenix area, two within the city of Phoenix as well as one in Tempe.

In 1996, TCG was authorized by the Arizona Public Utilities Commission to offer local switched services in the Phoenix area via its Lucent 5ESS central office switch. Traditionally, TCG has marketed integrated packages of telecommunications services to the largest business end users. However, TCG has recently modified that strategy and attempted to move "down-market." This is largely the result of its local exchange product rollout and the proliferation of high capacity use among smaller and medium-sized businesses.

Since 1994, TCG has adhered to a very aggressive expansion schedule, having completed a 30 route mile, OC-48 fiber ring in the Southeastern suburb of Chandler in 1997. Before beginning the extension, however, TCG secured a high capacity contract with Motorola - which operates a large office in Chandler.

GST

GST became a player in the Phoenix high capacity market in 1997 when it purchased the rights to the Phoenix Fiber Access network (which had previously been a 50/50 joint venture between GST and the IntelCom Group). The majority of the network was installed in 1996 and is largely limited to Phoenix's central business district.

Although GST's footprint in the Phoenix market may be smaller than several of its competitors, it plans to become a force in the Arizona communications market on a statewide level. In addition to its Phoenix network, GST operates facilities in the greater Tucson area (located approximately 120 miles South of Phoenix). Its Tucson network currently consists of over 70 route miles and connects several of the area's larger buildings. In 1997, GST completed construction of long-haul facilities connecting the Phoenix and Tucson markets; allowing it to target businesses operating in both locations. It will also allow GST to accumulate wholesale revenue by leasing capacity to other telecommunications companies.

GST is headquartered in Vancouver, WA and run by industry veteran John Warta (GST's chairman and CEO). GST operates networks throughout the western United States; focusing primarily on tier II and III markets. In the Southwest, GST runs metropolitan area networks in Phoenix, Tucson, Albuquerque, and Los Angeles. To route local traffic, GST has installed a Nortel DMS 500 central office switch at its equipment site on Lincoln Street at 18th Avenue.

MCI

In its attempt to become a full-service, facilities-based telecommunications provider in the greater Phoenix area, MCI has built a small fiber network in the city's central business district to transmit voice and data traffic. In contrast with several other CAPs/CLECs in Phoenix, MCI has not invested heavily in fiber facilities to serve end users on the city's periphery or in the suburbs. Instead, it has limited the scope of its network to the city's downtown area and connected the buildings that house its largest long distance accounts (to provide facilities-based high capacity service). MCI also provides services through resale.

Traditionally, MCI has targeted the large business segment for voice and data services (long distance, high capacity, data, and local exchange). Therefore, it finds itself competing primarily with U S WEST and TCG rather than MFS WorldCom and ELI. In Phoenix, MCI is the primary long distance carrier for several Fortune 500 companies - a sales channel that it frequently leverages to win high capacity and local exchange accounts. Today's MCI offers a variety of multi-service packages that include long distance, local exchange, high capacity and internet access.

In each of its local markets, MCI builds its fiber networks according to SONET ring architecture. Its network backbones run at speeds up to OC-48 and feature route diversity and electronic redundancy. To route local exchange traffic in Phoenix, MCI installed a Nortel DMS 500 in 1996 (although it was not activated until 1997).

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ELI

Having turned up its network in 1994, ELI was one of the first providers of competitive telecommunications services in the greater Phoenix area. Like MCI and MFS WorldCom, ELI originally limited the scope of its network to Phoenix's central business district. However, it decided to expand its network as the suburban demand for communications services increased. In 1997, ELI entered into a strategic alliance with the Salt River Project (SRP), an electric utility provider in the state of Arizona. Under the terms of the agreement, ELI leases substantial amounts of SRP dark fiber that traverses the entire area. The combined ELI-SRP network now encompasses over 400 route miles and is capable of delivering facilities-based service to Phoenix, Tempe, Scottsdale, Chandler, and Gilbert among others.

Historically, ELI has focused its marketing efforts on the middle market, although it has recently increased marketing campaigns directed toward Internet Service Providers (ISPs). One of its primary overall strategies is to establish several communications networks in the western United States and become a regional provider of communications services. At present, ELI operates competitive facilities in Phoenix, Salt Lake City, Las Vegas, Portland, and Seattle, enabling ELI to effectively market service to businesses operating in one or more of these markets. Additionally, ELI has established long-haul links between many of its markets and leases capacity to ISPs and other carriers.

ELI's network in Phoenix consists of multiple, overlapping SONET rings both in the city and in the suburbs. It employs a counter-rotating ring configuration in the construction of its backbone to add redundancy and protect against network failure. To ensure that fiber cuts do not result in lost traffic, ELI has built its network with route diversity and electronic redundancy to reroute traffic in milliseconds. In 1997, ELI installed a Nortel DMS 500 central office switch to route local exchange traffic.

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CONSOLIDATION

Over the last two years, mergers and competitive alliances have transformed the competitive landscape of the telecommunications market. Several of these mergers involve CAPs and long distance carriers that compete directly with U S WEST and will dramatically affect its market position over the next several years.

MCI/MFS WORLDCOM

The first major merger announced in 1997 (involving U S WEST competitors) was a union of MCI Communications of Washington, D.C. and WorldCom of Jackson, MS. The merger follows WorldCom's 1996 acquisition of Metropolitan Fiber Systems (a facilities-based competitor of U S WEST in the Phoenix area) and its 1997 acquisition of Brooks Fiber Properties. Additionally, MFS has already acquired national ISP UUNET in 1996 before its acquisition by WorldCom. The combined entity will have enormous market power in Phoenix and the United States as a whole. It combines the nation's second and fourth largest long distance companies, a major provider of competitive local communications services, and the two largest internet backbone operators in the world.

When the merger is complete (projected to happen in the third quarter of 1998), MCI WorldCom's sphere of influence in the Phoenix MSA will increase dramatically. The combined facilities will result in:

- Over 100 route miles of local fiber (including WorldCom's 75 route mile backbone and MCI's 20-30 miles)
- Two central office switches
- 70-100 "lit" buildings
- Several long-distance POPs and switches

With this merger MCI WorldCom will be able to decrease its reliance on U S WEST's services and facilities. Currently, U S WEST provisions hundred of high capacity circuits linking MCI long distance customers to the MCI POP in Phoenix. However, it will have the option of moving a large percentage of this traffic over to WorldCom facilities - resulting in a substantial reduction in MCI's costs. Because WorldCom has connected numerous buildings to its Phoenix-area network, MCI will have the option of providing true facilities-based service on a large-scale basis through the utilization of WorldCom facilities. MCI may also further decrease its reliance on U S WEST's facilities which supply the infrastructure used for the origination and termination of long-distance calls by migrating transport traffic from U S WEST-provisioned circuits to WorldCom's facilities, resulting in a reduction in MCI's operating costs as well as a reduction in U S WEST's access revenues.

Additionally, the two companies have an apparent synergy that will strengthen the merged carrier and allow it to impact the market quickly. Because WorldCom's traditional market consists of smaller and medium-sized businesses while MCI tends to focus on the large business market, there will be minimal overlap in sales forces and a less complicated integration of operations.

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AT&T/TCG

Also in 1997, AT&T and TCG announced a merger that analysts expect to be complete by the end of the third quarter of this year. The acquisition provides AT&T with an easy, rapid entrance to the facilities-based local exchange and High Capacity Markets. TCG becomes the recipient of a well-established sales channel to increase its switched services customer base.

In a manner similar to the MCI/WorldCom merger, there is an apparent synergy between AT&T and TCG. Traditionally, TCG has directed its marketing efforts toward the large business market, and rapidly accumulated a customer list laden with Fortune 500 companies. Conversely, AT&T's recent strengths have been the small business and consumer markets. With the merger, AT&T will be poised to reassert its influence among large business customers and TCG will expand its penetration to include the small business market. TCG will also acquire additional resources from the merger to allocate for network expansion in the Phoenix MSA.

Like MCI, AT&T stands to benefit significantly from the merger in that it will undoubtedly lead to a reduction in operating costs in its core business – long distance. AT&T will be able to reduce its reliance on U S WEST for high capacity circuits to AT&T's customers, transport, and switched access, further reducing U S WEST's infrastructure revenues.

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COMPETITORS AT A GLANCE

The following matrices provide summary information for high capacity facilities-based competitors in the Phoenix MSA. For additional information please refer to the appendix attached.

	WorldCom	TCG	MCI
Overall Strategy	One-stop provider for communications services, including local exchange, HICAP, data, internet, long-distance.	Leading provider of communications solutions to businesses. Service packages include local, data, long-distance, HICAP.	One-stop, single billing for businesses. Services include local, long-distance, HICAP, data.
Approximate Route Miles	75	>300	20-40
On-net Buildings	>50	>150	25-35
Central Office Switching	Nortel DMS 500	Lucent 5ESS	Nortel DMS 500
Network Establishment	2Q95	2Q94	1996
Business Target Markets	Traditional focus on the middle market. Seeks national accounts, solicits to other tenants in on-net buildings. Focus on existing WorldCom, UUNET customers.	Traditional focus on high-end users, now moving "down-market." Most TCG customers have enormous communications needs.	Traditional focus on large businesses. Relies heavily on existing L.D. customer base. Reputation for outstanding customer service.
Residential Target Markets	Not actively targeting	Not actively targeting	Not actively targeting
Geographic Areas	Phoenix's central business district, Camelback/Lincoln areas, Tempe, Scottsdale, and the Sky Harbor Airport	Area wide. Central Phoenix, Camelback, Scottsdale, Tempe, Mesa, Chandler, Glendale, Paradise Valley, Phoenix Sky Harbor Intl. Airport, Tolleson	Fiber is located in Phoenix's central business district (although MCI provides services in Mesa, Scottsdale, and Tempe via resale and use of U S WEST facilities)
Competitive Alliances	Pending merger with MCI to form MCI WorldCom	Pending merger with AT&T	Pending merger with WorldCom to form MCI WorldCom

(Continued on next page)

COMPETITORS AT A GLANCE

	ELI	GST
Overall Strategy	Provider of diversified communications services, including local, L.D., HICAP, and data services	Provider of integrated communications services - DS-0 through OC-N, data services, local exchange, ISDN
Approximate Route Miles	400	11 miles in downtown Phoenix with an additional 18 miles of right-of-way and conduit available for expansion. 300 Route miles of fiber in the state of Arizona
On-net Buildings	30-45	15-25
Central Office Switching	Nortel DMS 500	Nortel DMS 500
Network Establishment	1995	1996
Business Target Markets	Middle market and high-end users, ISPs.	All business customers, large and small.
Residential Target Markets	Not currently targeting	Not currently targeting
Geographic Areas	Throughout the metropolitan area. Central Phoenix, Tempe, Mesa, Chandler, Glendale, Paradise Valley, Tolleson, Gilbert.	Downtown Phoenix and Southern Arizona
Competitive Alliances	Partnership with Salt River Project (local utility provider) in Phoenix	Formed Phoenix Fiber Access with ICG in 1995. Purchased ICG half in 1997.

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COMPETITOR CAPACITY

In recent years, U S WEST has become particularly vulnerable to losing additional Provider Market share due to the relative ease of switching providers (from both the wholesale and retail perspectives). During the initial infrastructure deployment, CAPs overbuilt their networks to meet the anticipated bandwidth demands of the future. Therefore, CAP networks are equipped with significantly more capacity than is currently being utilized. In fact, many industry analysts feel that several competitors are using only a small fraction of theoretical network capacity at the present time.

Two facets of CAP network construction generally contribute to their enormous capacity: 1.) the use of 144 strand optical fiber cable and 2.) adherence to SONET ring architecture. By using 144 strand cables, CAPs are capable of operating 36 "systems" across their networks (assuming a system is comprised of 4 individual fiber strands). The use of SONET ring network architecture allows CAPs to install self-healing rings that are connected, yet function independently - thereby increasing overall network capacity as rings are added to the network. Because CAPs have made several capacity allowances in the construction of their metropolitan area networks, they are able to grow and add circuits without necessitating frequent upgrades. In other words, there is a low marginal cost (from a capacity standpoint) associated with adding customers and circuits. To further facilitate the migration of traffic from RBOC facilities to competitive networks, CAPs frequently waive installation charges for new circuits.

As is the case with Provider high capacity circuits, CAPs will have little difficulty assuming Transport traffic from IXCs and other carriers. Generally, CAPs install extraordinary amounts of capacity around long distance POPs, U S WEST central offices, and competitive switching centers because of the enormous amount of traffic that originates and terminates at these facilities. In all likelihood, only a fraction of that capacity is currently being utilized and CAPs have the capability to assume Transport circuits without upgrading network capacity.

See the following page for a map of the competitor fiber routes.

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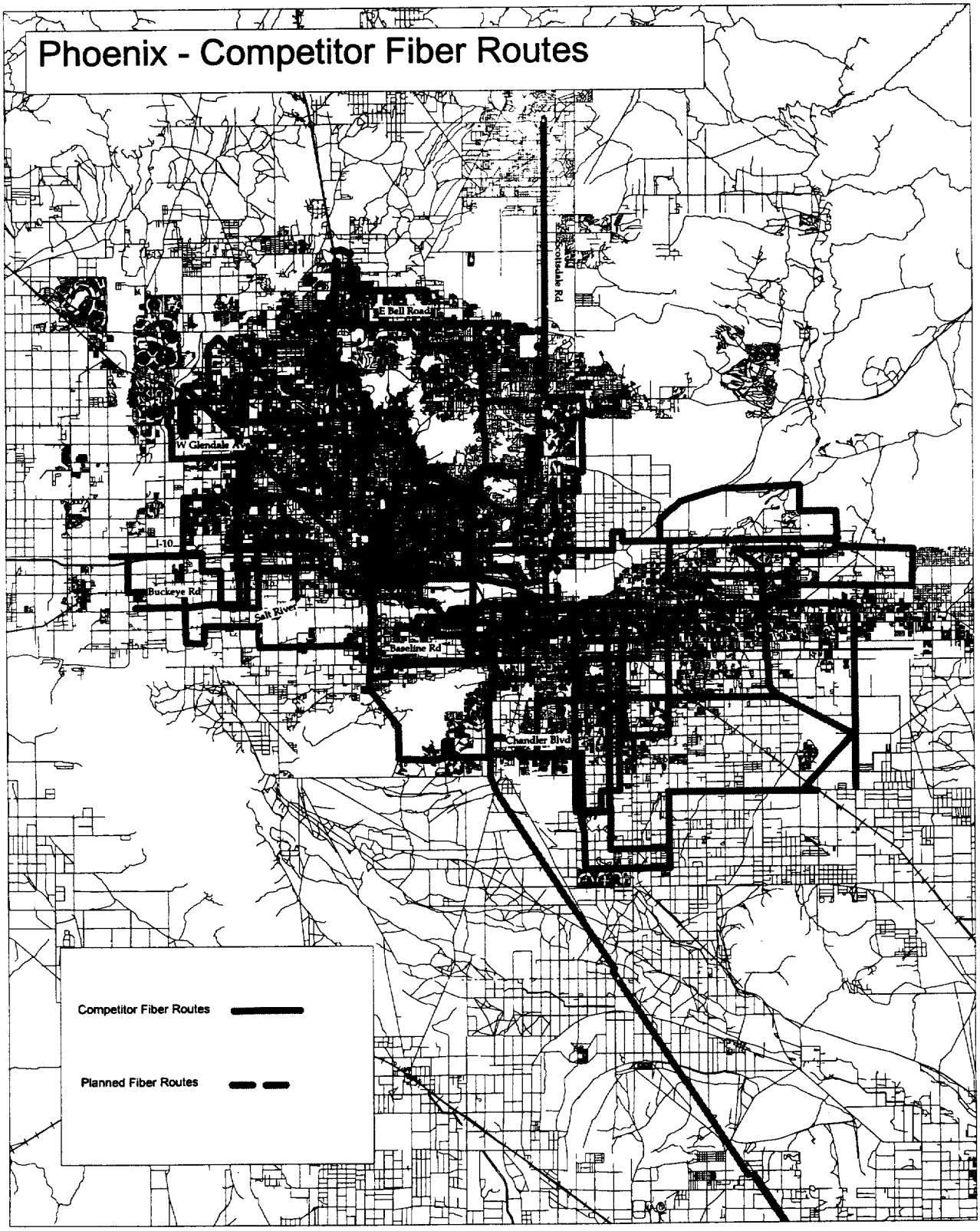

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Several factors contribute to network capacity, including the type of fiber used, transmission software, the number of SONET rings deployed, and the number of nodes in operation. The following table is designed to provide the basic competitor facilities that contribute to the overall capacity of a network. According to QUALITY STRATEGIES estimates based on U S WEST-supplied aggregate data (including DS-1, DS-3, and optical circuits used for end user traffic and transport), U S WEST currently operates approximately 85,700 DS-1 equivalents. The existing CAP networks could easily handle all U S WEST traffic (including optical circuits) by having only three systems activated in each CAP network (or less than 8% of total capacity).

In this case, we are defining a system as consisting of four individual fibers. Since CAPs generally install 144 strand fiber in their backbones, it is possible to have 36 systems under this arrangement. Assuming that each fiber ring runs at optical speeds (OC-3 through OC-48) and that all backbone rings are comprised of 144 strand fiber, the competitive networks in Phoenix (taken together) could handle all U S West traffic at less than 8% capacity. Please refer to the table below for a detailed description of CAP capacity in Phoenix.

Network capacity estimates are calculated based on the following inputs: Backbone speeds (which vary from ring to ring), and the number of SONET rings. The number of equipment sites was not taken into account for the calculation of network capacity. Please refer to the following page for a table illustrating competitive network capacity.

COMPETITOR CAPACITY

	TCG	*WorldCom*	*MCI*	*ELI*	*GST*	***Total***
Maximum Backbone Speed (in OC-n)	48	48	48	48	48	**N/A**
Approximate Percentage Operating at OC-48	75%	100%	100%	80%	75%	**N/A**
Other Backbone Speed (in OC-n)	12	0	0	12	12	**N/A**
Approximate Percentage Operating at that Speed	20%	0%	0%	20%	20%	**N/A**
Other Backbone Speed (in OC-n)	3	0	0	0	3	**N/A**
Approximate Percentage Operating at that Speed	5%	0%	0%	0%	5%	**N/A**
Average Backbone Speed (in OC-n)	38.55	48.00	48.00	40.80	38.55	**N/A**
SONET Rings operational in network	10	4	3	7	3	**27**
Approximate Capacity in OC-n	386	192	144	286	116	**1,123**
Approximate Capacity in DS-1 Equivalents*	10,794	5,376	4,032	7,997	3,238	**31,437**
Capacity Assuming 1 Systems	10,794	5,376	4,032	7,997	3,238	**31,437**
Capacity Assuming 3 Systems	32,382	16,128	12,096	23,990	9,715	**94,311**
Capacity Assuming 5 Systems	53,970	26,880	20,160	39,984	16,191	**157,185**

*Note: Approximate Capacity in DS-1 Equivalents is calculated by multiplying the above OC-n value by 28.

The average backbone speed of each competitor's network is derived by using the weighted averages of the various network speeds used in their network. The average backbone speed is then multiplied by the number of SONET rings operating in the network. The product is then multiplied by 28 to get the DS-1 equivalent. Examples of capacity are therefore provided based on the assumptions regarding the number of operational systems.

CONCLUSIONS

To date, U S WEST has lost approximately 23% of the High Capacity Market. This market includes both the Provider Market (consisting of special access and point to point circuits) and the Transport Market (consisting of circuits connecting POPs and local exchange COs).

Currently, U S WEST's share of the Provider Market is approximately 72%; down from 94% in the fourth quarter of 1994. Competitors have chipped away at U S WEST's market share through facilities buildout and alliances with interexchange carriers. Traditionally, U S WEST's facilities-based competitors have targeted its most valuable accounts - bandwidth-intensive large businesses. Because of this, CAP competitors have captured a greater percentage of the DS-3 (45 Mbps) market than the DS-1 (1.5 Mbps) market.

From a retail perspective, U S WEST maintains a billing relationship with fewer than 30% of all high capacity circuits. In other words, CAPs and IXCs maintain the end user relationship for 70% of special access high capacity circuits despite the fact that U S WEST currently provisions over 70% of these circuits.

While U S WEST's share of the Transport and Wholesale Markets are higher than its share of the Provider Market, recent incremental losses indicate that the figures may achieve parity in the near future. As of the fourth quarter of 1997, U S WEST accounts for 84% of the Transport market, down from 94% in the second quarter of the same year (six months earlier). Along the same lines, U S WEST's share of the Wholesale Market had dropped to 79% in fourth quarter 1997. Much of this share loss can be attributed to the realignment of carriers and an IXC desire to minimize the amount of business it conducts with U S WEST.

There is every indication that erosion of U S WEST's share of the Phoenix High Capacity Market will continue. Both U S WEST's relatively low Retail Market share and the enormous amount of unused capacity in competitive networks make it highly likely that U S WEST's share of the Provider and Transport Markets will continue to decline. This decline is expected to be exacerbated by continued consolidation in the telecommunications industry (e.g., the merger of AT&T and TCG).

APPENDIX

METHODOLOGY OVERVIEW

MARKET SHARE SUMMARY OVERVIEW

Market share results for Provider and Retail Market are based on actual usage obtained from surveys and invoice analyses. Market share results for this project are based on customer usage as of the fourth quarter of 1997. The following steps illustrate our process for delivering end user Provider and Retail market share results for U S WEST:

STEP 1: COMPETITOR AND INDUSTRY ANALYSES

Multiple inputs to sampling approach and sample plan, including competitor research, proprietary regional and national databases, and pre-survey screeners.

STEP 2: ESTABLISH SAMPLE PLAN AND QUOTAS

Develop preliminary market share estimates, establish quotas for appropriate strata, including high penetration and low penetration strata, and sub-strata (demographics, spending levels, etc.).

STEP 3: DEVELOP AND SELECT SAMPLE

Develop and select stratified random sample from sampling frame constructed from multiple sources, including third-party lists of businesses and proprietary databases.

STEP 4: CONDUCT FIELDWORK

Collect survey data and invoices. Based on the quotas established in the sampling plan, we conduct fieldwork to collect three inputs - short form surveys, long form surveys, and invoices - on which market share results ultimately are developed.

Achieve quotas for strata, and supplement with additional interviews for low incidence strata. Calibrate self-reported data with appropriate invoice bias factors.

STEP 5: ANALYSIS AND REPORTING

Analyze survey data and invoice data, and develop final results.

SAMPLING METHODOLOGIES

We develop our sampling plan using stratified random sampling techniques, which provide for efficient statistical estimates by designing the sampling plan based on particular strata (e.g., mix of utilization of competitors, demographic characteristics, geographic location, etc.) that we have developed and successfully applied over the past ten years. We utilize a mix of random and targeted surveys based on the stratified random sampling techniques. We use the random surveys to qualify respondents for different quotas established in our sampling plans. We also use the data obtained in the random surveys to establish weights for different strata when we reconstitute market share results.

SOURCES OF MARKET SHARE DATA

Market share results are based on data acquired from multiple sources, including surveys, customer invoices, and competitor research. We use our standard HICAP survey to collect data from business customers. QUALITY STRATEGIES surveyed business customers regarding their usage of high capacity DS-1 and DS-3 services. The survey includes questions on all competitive DS-1 and DS-3 services, including CAP fiber-based services, microwave services, satellite services, and customer-owned facilities. We also use surveys to collect demographic information, perception data, and other information not available on customer invoices.

We acquire customer invoices (RBOC, CLEC, CAP, IXC, and other competitive services) to provide market share results that are based on actual customer usage. We collect customer invoices to validate self-reported data and to calibrate reconstituted market share results based on actual customer expenditures and to correct for over- and under-reporting. On an aggregate basis, we analyze differences between survey and invoice data to develop and utilize bias estimates when calculating market share results.

STATISTICAL VALIDITY

This project is designed to provide estimates of high capacity (DS-1 and DS-3) share that are statistically valid for U S WEST's overall high capacity services compared to competitive alternatives. Sample sizes are designed to achieve statistically valid market share results for the Phoenix MSA.

High capacity (Provider and Retail) market share results for the Phoenix MSA are based on a 95% confidence level with ±5% margins of error. Estimates for particular types of high capacity services (i.e., disaggregated results) are likely to have a higher margin of error. Trend results are based on a consistent methodology across time periods.

COMPETITOR RESEARCH OVERVIEW

The competitive analysis is comprised of information gathered by QUALITY STRATEGIES' analysts for two separate "CAP/CLEC Network Descriptions" projects commissioned by U S WEST in the third and fourth quarters, 1997. Competitive information is gathered from numerous sources (both primary and secondary) including the following:

- Interviews with CAP/CLEC and IXC professionals, including marketing, sales, administrative, executive, and technical personnel
- Interviews with large business end users
- Interviews with equipment vendors and equipment retailers
- Secondary market research including on-line sources and public information
- QUALITY STRATEGIES' extensive, national competitor database that has been maintained and updated continuously over the last ten years

HIGH CAPACITY MARKET SHARE

High Capacity Market share is based on all end-user DS-1 and DS-3 services, including Special Access and Point-to-Point (exchange) circuits as well as transport circuits (measured in DS-1 equivalents).

Prior to 2Q97, Quality Strategies had been providing U S WEST with HICAP Track results for providers offering facilities-based service. Thus, no resellers have been included in Provider Market results. Since 2Q97, Quality Strategies has been presenting Provider results in addition to Wholesale and Retail Market results. Each set of results is clearly documented to indicate whether it encompasses facilities-based provider results, retail results that include resellers, or wholesale results.

QUALITY STRATEGIES uses DS-1 equivalents as the basis for market share estimates. Market share is provided for each service provider in terms of the percentage of DS-1 equivalents provided. Specific steps used to determine DS-1 equivalent share for each competitive category are as follows:

A. Determination of DS-1 Equivalents. High Capacity market share is provided on a DS-1 equivalent basis. All circuits are expressed in terms of 1.544 Mbps. QUALITY STRATEGIES uses the following calculations to determine DS-1 equivalent share:

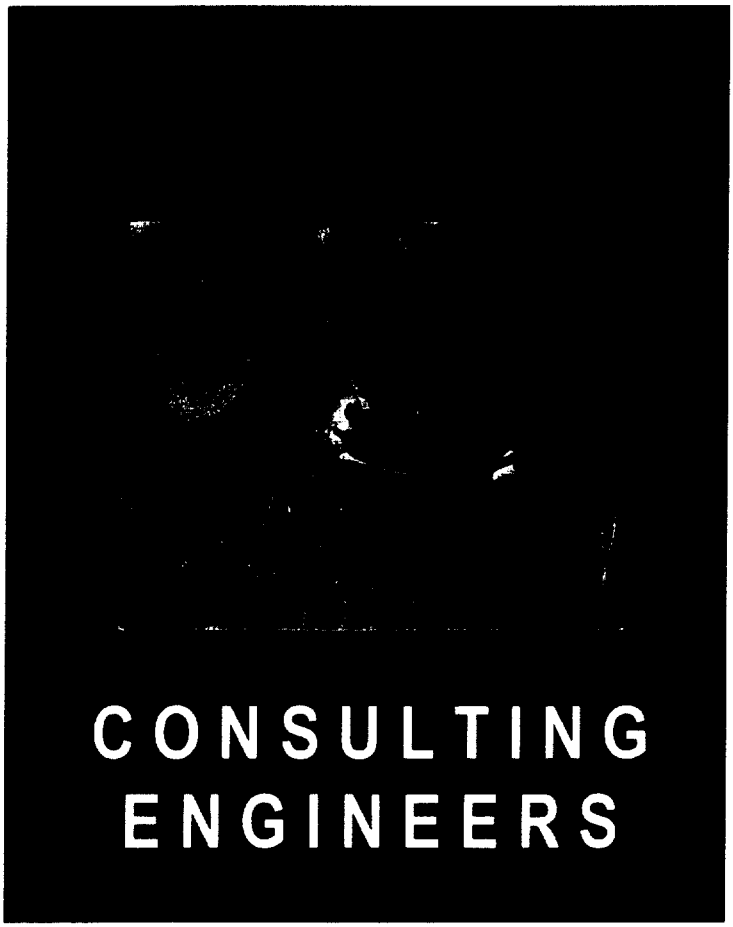
- One (T-1) DS-1 Circuit = One DS-1 Equivalent
- (T-3) DS-3 Circuits: Number of DS-3 Circuits x 28 = Number of DS-1 Equivalents

B. Determination of DS-1 Equivalents Percentage Share. DS-1 equivalents are totaled, and share is presented based on the percentage of the total each carrier provides.

Retail v. Wholesale. As stated previously, retail circuits are sold to end users. Wholesale circuits are provided to CAP/CLECs and IXCs for resale to end users. For example, a U S West circuit could be sold to AT&T (and paid for by AT&T), but resold to AT&T long-distance customers for special access to the AT&T POP. In this case, the end user is billed by AT&T although the circuit is provisioned and maintained by U S West. In this scenario, U S West receives Provider and Wholesale Market share for the circuit while AT&T receives Retail Market credit. Share of the Wholesale Market includes both end-user and transport circuits.

QUALITY STRATEGIES provides market share estimates based on DS-1 equivalents. Market share is provided for each service provider in terms of percentage of DS-1 equivalents provided.

ATTACHMENT B



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